"Translating Nutrition in Non-fiction: Case Study of ""Eat. Stop. Eat." "by Brad Pilon"

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Study Programme: Double Major MA Study Programme in English Language and Literature – English Translation and Interpreting Studies and Pedagogy

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Master's Thesis

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Diplomski rad

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Diplomski rad

Znanstveno područje: humanističke znanosti

Znanstveno polje: filologija

Znanstvena grana: anglistika

Mentor: prof.dr.sc. Marija Omazić

Sumentor: Romana Čačija, viši lektor

Osijek, 2018

Abstract:

This paper presents the genre of non-fiction, its features and types as well as features of the translation process in non-fiction texts. Popularity of nutrition in non-fiction is examined on a global level, as well as popularity of non-fiction and nutrition in non-fiction on the level of the Republic of Croatia. The examination shows that popularity of nutrition in non-fiction is quite low, but that the genre of non-fiction is well represented in Croatia. Furthermore, "Eat. Stop. Eat." by Brad Pilon was selected as an example of a non-fiction book dealing in nutrition. It was translated in full and a terminological analysis of terms related to nutrition is provided in this paper. The aim of the paper is to present the features of non-fiction texts, discuss the translation process of non-fiction texts and provide a translation as well as a detailed examination of a non-fiction book related to nutrition and its terminology.

Key words: *nutrition, non-fiction, fasting, terminology*

Table of Contents

1. Introduction

This paper discusses the genre of non-fiction, popularity of nutrition within the non-fiction genre and provides a terminological analysis of "Eat. Stop. Eat" by Brad Pilon, which was selected as a suitable example of a non-fiction book related to nutrition.

The first chapter presents general information about the genre of non-fiction, such as its features and types. The types of non-fiction will be presented in 3 different ways, i.e. according to 3 different sources. Furthermore, features of the translation process will be described when dealing with the genre of non-fiction.

The second chapter describes nutrition within the genre of non-fiction. The popularity of nutrition in non-fiction in the world will be analysed by examining several relevant sources. Moreover, the popularity of non-fiction in general will be examined for the Republic of Croatia, as well as popularity of nutrition in non-fiction. This will be done by analysing relevant Croatian sources.

The third chapter will present the case study of "Eat. Stop. Eat." by Brad Pilon and the terminological analysis. Here, several categories of terms related to nutrition will be presented as well as relevant methods and strategies of translation that were using in the process of translation.

Finally, a conclusion is presented. It is followed by the original text of "Eat. Stop. Eat" by Brad Pilon as well as the translation.

2. The Genre of Non-fiction

2.1. Features of Non-fiction

Since this thesis deals with translation of non-fiction, it is deemed proper to define the term in question and elaborate on its features. This will be achieved by examining available dictionaries for definitions of the term and consulting works of different authors who have written about non-fiction and its features.

For the purpose of acquiring a clear definition of the term non-fiction, three dictionaries have been selected. Two of them are dictionaries of the world-renowned universities, i.e. University of Oxford and University of Cambridge, and one of them is a popular, readily available online dictionary plainly named Dictionary.com. *En.oxforddictionaries.com* defines non-fiction as "prose writing that is informative or factual rather than fictional", while *dictionary.cambridge.org* defines the aforementioned term as "writing that is about real events and facts, rather than stories that have been invented". The above definitions describe non-fiction as prose writing based on real facts, mention its informative character and the fact that it does not deal with imaginative and fictional topics. However, the most comprehensive definition is provided by *dictionary.com*: "The branch of literature comprising works of narrative prose dealing with or offering opinions or conjectures upon facts and reality, including biography, history, and the essay (opposed to fiction and distinguished from poetry and drama)". The latter definition noted that non-fiction is a branch of literature, which was omitted in the former definitions and briefly touched on sub-genres of non-fiction, a topic that will be discussed in details later on.

As a branch of literature, it entails a broad spectre of other sub-genres and has features of its own. Often, when we think of non-fiction, and idea of dry, boring pages filled with perhaps somewhat interesting content presented in an uninteresting manner comes to mind. Terms that hardly anyone understands are used and the style of writing is scientific, hence the general audience does not appreciate it. This image of non-fiction is possible, but the popular opinion that non-fiction has nothing more to offer could not be further from the truth, since much of non-fiction is written in a tone that is light and easy to follow, while useful and interesting information based on real facts is provided. According to Wyatt, people "are accustomed to thinking of fiction as cosy, edgy, funny, or bleak, but non-fiction titles are often argumentative, investigative, journalistic, or have a popular or scholarly tone. Non-fiction can be cosy or funny as well, but writers often employ a tone that is different from fiction" (33). Valken points out that "the major difference between a fiction writer

and a non-fiction writer, it was said, is that the latter should always adhere to truth and should never cross a certain inner border: he or she cannot write about emotions or dreams" (3). Despite the fact that non-fiction writers need to adhere to truth, this does not mean that they need to present it in an uninteresting manner. Often, "techniques are borrowed between fiction and non-fiction" (Valken 3) and this is what enables fiction writers to present their 'truth' in an exciting and easy to read manner. This notion of boring non-fiction is what makes "readers often think of non-fiction as an information experience and not as a story experience" (Wyatt 32). This is a widely spread, but not entirely correct point of view since "there is a huge body of non-fiction that is both informative and story-based" (Wyatt 33). It is, in fact, up to the non-fiction writer to decide if the story, i.e. the subject he wishes to elaborate on, is best told in a 'textbook tone' or in a 'story-like tone'. According to Wyatt, "the techniques of narrative storytelling such as character, plot, setting, scene, and dialog can be employed in a non-fiction work as well as a fictional one" (33). Keizer supports this point of view by stating that one may "find great writing both inside and outside of fiction and that there are certainly no elements of style which are peculiar to either sort of writing" (50). In fact, he went as far as saying that the there is only "one difference between the language of fiction and non-fiction, and that is the use names for persons and places" (Keizer 50). The author backed this up by saying that foreign names for people and places must not be localised when adapting a work of non-fiction for certain readers. Valken made a case against the use of narrative storytelling when writing fiction: "On the one hand it might bridge the gap between the academic world and that of the layman; on the other hand, when there is too much focus on style, there is a danger that some content will be lost in the process" (4). In other words, watering down the complexity of non-fiction content for the sake of style might increase interest for the text in general public, but it then might also cripple the capacity to carry the same amount of information as it would when written as a 'textbook type' text. Goudsblom stated that the primary function of non-fiction literature is "to inform us about the world we live in – about its present condition and history, in the widest possible sense of the word, and about the various ways of viewing this world" (12). Therefore, it should not really matter in what way the author decides to present his or her subject. However, when reading non-fiction to inform ourselves about facts and gain knowledge, "in addition, we also like to gain a more general impression and, preferably, to be touched, and moved, or entertained" (Goudsblom 7). When deliberately choosing to write a 'textbook tone' piece of non-fiction, Wyatt suggests that "writers use detail to help aid reader understanding" (33). This entails the use of elements such as "illustrations, charts, maps, footnotes, bibliographies, and other visual and textural elements that amplify the text" (Wyatt 33). Such elements introduce minute details in an orderly manner and make them easier to grasp for the reader; therefore, the

usage of aforementioned elements is recommended and often used to "provide visual explanations of the difficult written concepts" (Wyatt 33). Furthermore, another thing that is characteristic of non-fiction is "that readers read to learn or closely relate to the perspective of the author" (Hyatt 34). Readers are often drawn to a work of non-fiction because of the author who wrote it. The author may be an interesting figure and people are often curious to learn about the author's life, e.g. in a biography, or about the author's point of view in a different type of non-fiction. Additionally, the subject of non-fiction writing is of outmost importance since "it is often the subject that draws a reader to a title and creates interest in other titles" (Hyatt 34). The subjects covered by non-fiction are almost infinite; it can cover anything, from astrophysics to politics or even cookbooks, as long as the content of the book is based on real facts.

To sum it up, non-fiction is a branch of literature, it is prose and it adheres to truth, i.e. it is factual and of informative character. This is also the key feature that distinguishes non-fiction from fiction: non-fiction must be based on real facts. Since it may deal with comprehensive and heavy subjects, it is often written in a style that is primarily informative and pays no attention to the readability of the text. Therefore, the elements that ease understanding of content, such as illustrations or charts, are often used. Non-fiction writers may utilise techniques of narrative storytelling which are characteristic of fiction, but do not have to. As noted above, authors have divided opinions on this topic since "literary people disregard it because they do not find it terribly interesting and (…) more often than not they also find it too difficult; while scientists, on the other hand, look down upon it as 'popularization'" (Goudsblom 9). Non-fiction can get its appeal from the author, as many readers are drawn to interesting personas. On the other hand, non-fiction books can get their appeal from the subject they deal with, and non-fiction truly can cover a large spectre of topics. If written with the employment of techniques of fiction, non-fiction "has a great deal more to offer than sheer practical information" (Goudsblom 7). This seems to be the case since Stewart states that non-fiction books "have undergone exciting and dramatic changes" over the last 25 years and that "it's a great time for non-fiction" (12).

2.2. Types of Non-fiction

Not all non-fiction is created equal. There are several ways to divide non-fiction, depending on the source consulted. In the following pages, three divisions of non-fiction shall be elaborated on. It is important to note that "non-fiction literature comprises an enormous field, at least as large as the field of fiction" (Goudsblom 6), and hence, there are several approaches when it comes to determining non-fiction types.

According to Stewart, there are five kinds of non-fiction: traditional, browsable, narrative, expository literature and active non-fiction (12). Traditional non-fiction is a type of non-fiction that gets straight to the point, in a sense that it is not very concerned with entertaining, but with informing: "these traditional titles (…) emphasize balance and breadth of coverage, with language that is clear, concise and straightforward. They have an expository writing style that explains, describes, or informs, and typically employ a description text structure (Stewart 12). This is an old-fashioned type of non-fiction that provides the reader with "a general overview of a topic" (Stewart 12); the primary concern of this type of non-fiction is to give the reader as much information as possible with little to no concern to narration or employment of an easy-to-follow style of writing. Further on, there is the browsable kind of non-fiction. This is a type of non-fiction that does not require long periods of attention: "readers can easily dip in and out, focusing on the content that interests them most" (Stewart 12). These books are known for beautiful design, illustrations and short passages of text and provide "a fresh, engaging way to access information" (Stewart 12). Moving on, Stewart lists narrative non-fiction as "prose that tells a true story or conveys an experience. This style of writing appeals to fiction lover because it includes real characters and settings; narrative scenes; and, ideally, a narrative arc…" (12). As a work of non-fiction should, it adheres to truth, i.e. realistic facts, but gives "readers an intimate look at the world and people being described … while condensing parts of the true story that aren't relevant to the author's purpose" (Stewart 12). Such non-fiction is quite similar to fiction, but is based on real facts. Another type that is similar to fiction in style is expository literature: "expository literature presents narrowly focused topics . . . in creative ways that reflect the author's passion for the subject. These books typically feature an innovative format and carefully chosen text structure, a strong voice, and rich, engaging language" (Stewart 13). This type of non-fiction also contains elements of fiction in a sense that the author passionately describes the subject of interest with interesting, engaging language, but bases its subject in real facts as a work of non-fiction should. Finally, Stewart introduces the active titles kind of non-fiction: "browsable books that are highly

interactive and/or teach skills that readers can use to engage in an activity" (13). This a type that deals with practical knowledge and comes in the form of "how-to guides, cookbooks, filed guides, craft books" (Stewart 13) and other; it also employs expository style and is focused on passing on knowledge.

The Finnish Association of Non-fiction Writers provides another great overview of non-fiction types. On their official website, *www.suomentietokirjailijat.fi/en*, they provided a clear overview of non-fiction genres: research literature, reference works, manuals, educational materials, general non-fiction, children's non-fiction and finally, opinion books (1). Besides this overview, they listed types of text within a genre, nature of text and the target readership for each genre. For the purposes of this thesis, the nature of these genres shall be described along with several types of text in order to develop a clear understanding of each genre. In addition, the intended group of readers for each genre shall be mentioned and a representative type of text within each genre more closely examined. Regarding the genre of research literature, *The Finnish Association of Non-fiction Writers* states that the nature of those texts is as follows: "critical, methodical, theoretical, editable, source-based, substantiated, objective, autonomous, systematic, goal-oriented, cumulative, formal" (The Finnish Association of Non-fiction Writers 1). As one might imagine, the types of text categorised as research literature are not for light reading and include: "doctoral dissertations, monographs, scientific series, chronicles, article collections, scientific journals, Festschrifts, research report, e-publications" (The Finnish Association of Non-fiction Writers 1). This genre of non-fiction is mostly intended for researches and informed audience, since e.g. a monograph is "a detailed written study of a single specialized subject or an aspect of it" (en.oxforddictionaries.com), therefore not intended for the general audience. Furthermore, the nature of the reference works genre is described as "critical, methodical, comprehensive, need updating, objective, formal, systematic" and types of texts listed for that genre are "encyclopaedias, dictionaries, bibliographies, registers, biographical reference works, annals, almanacs, atlases, manuals, statistics, e-reference works" (The Finnish Association of Non-fiction Writers 1). Some of these types are intended for a very specific, professional audience, but e.g. texts such as encyclopaedia: "a book or set of books giving information on many subjects or on many aspects of one subject and typically arranged alphabetically" (en.oxforddictionaries.com) is intended for the general public. Another genre listed is the genre of manuals, its nature is described as "topical, popular, reliable, needs updating" and types of text listed are "instructions, hobbies, cookbooks, travel guides, ICT guides, building manuals, financial handbooks, legal handbooks, work manuals, health guides, language guides, e-manuals" (The Finnish Association of Non-

fiction Writers 1). This genre is mostly goal oriented and is intended for both professionals and amateurs. For example, a cookbook: “a book containing recipes and other information about the preparation and cooking of food” (en.oxforddictionaries.com) can be found in almost every home kitchen in the world, but also in professional kitchens. Further on, the genre of educational materials is mentioned. The nature of texts in that genre is “topical, popular, reliable, need updating, comprehensive, correlative, interesting” and the types of text are “textbooks, exercise books, teacher’s handbooks, exam questions, answer books, e-educational materials” (The Finnish Association of Non-fiction Writers 1). There are similarities with the genre of manuals in the nature of text, but the difference is that texts in this genre, such as the textbook, defined as “a book used as a standard work for the study of a particular subject” (en.oxforddictionaries.com) are intended for education purposes. The next genre is quite broad in its scope and is appropriately titled as general non-fiction. The nature of text in this genre is “popular, reliable, interesting, narrative” and the types of text listed are “popular non-fiction, science & social science, history, nature, travel, biography, art, picture books, reportage books, e-books” (The Finnish Association of Non-fiction Writers 1). The types of text listed here seem categorical, topical and less specific than the ones so far. The type of popular non-fiction on its own can cover a large scope of non-fiction texts. Hence, this genre appeals to the greatest audience, since something such a biography, “an account of someone’s life written by someone else” (en.oxforddictionaries.com), may be an interesting piece of writing for professionals, but also for the general public. The genre of children’s non-fiction is mentioned as well, its nature is described as “popular, presentation mode, interesting, narrative” and the types of text in the mentioned genre are “non-fiction in general, reference works, guides, picture books” (The Finnish Association of Non-fiction Writers 1). The nature described for children’s non-fiction is not at all surprising, considering that its audience is primarily children, therefore an item such as a picture book, “a book containing many illustrations, especially one for children” (en.oxforddictionaries.com) is an ideal representative of this genre. Finally, the nature of opinion books genre is described as “popular, subjective, interesting” and types of texts listed for this genre are “essays, pamphlets, memoirs, religious books, philosophy of life” (The Finnish Association of Non-fiction Writers 1). This genre of non-fiction also has a massive appeal and a large audience, i.e. the general public and many other professionals as well as informed readers. A popular representative of the genre is a memoir: “A historical account or biography written from personal knowledge” (en.oxforddictionaries.com).

Another view of non-fiction is suggested. From the perspective of publishers, there are two types of non-fiction: “non-fiction ranges from subject-oriented to author-oriented titles” (Spijkers 32).

According to Spijkers, "subject oriented titles serve a direct purpose: the actual information they offer is more important than the style of the author" (32). This generally means that the readers will pick this piece of non-fiction writing based on the topic in question, not the author who wrote the text. The most important thing about this type of non-fiction is the information the reader can gain from reading it; the author and the style of writing come in second place. In fact, the author is so irrelevant that this type of non-fiction can be written on-demand, i.e. a publishing house may come up with a topic for a book or "an idea and approach a writer for it" (Spijkers 33). On the other hand, there is the author-oriented non-fiction or literary non-fiction, for which Spijkers states "that it does not serve a direct purpose: people read literary non-fiction because they want to be entertained, and because they can learn something in the process" (33). Another terms used for this type of non-fiction is creative non-fiction. According to Bradway and Hesse, "creative non-fiction is an inadequate term for fact-based writing with literary qualities, yet we use it anyway" (3), the reason being that the authors think of creative non-fiction as much more. One of the features of creative non-fiction is that there is always a strong personal presence of the writer, i.e. "one unarguable characteristic of creative non-fiction is a strong authorial voice and style" (Bradway and Hesse 3). Creative non-fiction books may be "opinionated, stylistic, scattered and personal" (Bradway and Hesse 6), and people often read it not primarily for information but "to enjoy good stories set in all kinds of places, or because they like the cleverness of the book's structure, or because of the writer's background and sense of humor" (Bradway and Hesse 6). In a work of creative non-fiction, the "writer doesn't aim necessarily to persuade or inform the reader but to move her" (Bradway and Hesse 6). Some might argue that creative non-fiction, in fact, is not non-fiction at all, but fiction. This is not true since "the story and people in creative non-fiction are based upon actual events, people, and information" (Bradway and Hesse 7). Much of the creative non-fiction falls into the genres of non-fiction mentioned above: "memoir, personal essay, narrative journalism, the poetic or lyric essay. . ." (Bradway and Hesse 4), but there is a significant difference between, e.g. a biography as non-fiction and as creative non-fiction: "Most biographies don't include either the writer's direct presence or reflections by the writer. They focus less on creating an aesthetically lively artifact than on presenting information. Their main goal is not to move or change readers, but to inform them…" (Bradway and Hesse 5). Therefore, a same type of text may be written, but depending on the style of writing used, it may be categorised under non-fiction or creative non-fiction.

To conclude, there are several different views of non-fiction. According to Stewart, there are five kinds of non-fiction: "Traditional, Browsable, Narrative, Expository literature, Active titles" (12).

On the other hand, according to *The Finnish Association of Non-fiction Writers,* there are seven genres of non-fiction: "Research literature, Reference works, Manuals, Educational materials, General non-fiction, Children's non-fiction, Opinion books" (1). Finally, from the publisher's point of view, there are only two types of non-fiction: "non-fiction ranges from subject-oriented titles to author-oriented titles" (Spijkers 32). Needless to say, many of these divisions make the same point, but express them differently. Subject-oriented non-fiction encompasses many genres mentioned above, such as research literature or manuals as well as Stewart's traditional or browsable non-fiction. On the other hand, author-oriented non-fiction can include genres such as general non-fiction or children's non-fiction, but also Stewart's narrative or expository literature.

2.3. Translating Non-fiction

As described in the previous chapter, the field of non-fiction is comprised of an extensive number of text types. This means that the scope of subjects and styles in non-fiction is also quite extensive and this can be challenging in terms of translation.

According to Valken "the translating of non-fiction was argued to be no easier than translating fiction" (6). Losman compares translation of non-fiction to translation of fiction by stating that in translation of fiction, a translator has an intimate relationship with the text and that, usually, there are no outer interruptions or other things to worry about: "there is the text and you have to pass over this text to another language" (50). On the other hand, "when you translate non-fiction it is very different. You feel on your shoulders several types of responsibility: you have a responsibility towards the author, towards the content of the non-fiction book and, of course, towards the reader" (50). Needless to say, a translator has these responsibilities when translating fiction as well, but considering the nature of non-fiction texts, they seem to be slightly more pronounced when translating the latter. Regarding the responsibility towards the author, several situations may occur: "You can have a very good author . . . nice style, elegant, clear" (Losman 50), but of course, as many translators know, this is not always the case. If a non-fiction text is poorly written or a translator gets a poor translation of a source text for further translation, it causes issues because it becomes significantly more difficult to produce a high-quality translation: "you will immediately carry the guilt of all the things that are a bit clumsy" (Losman 50). Therefore, it is important for the translator to communicate with the author and check any ambiguities that may appear. If there is an ambiguity in the text, it is best to check with the author if he wants it to appear in the translation or not. If the author intended for the ambiguity to be there, the translator needs to translate it to the target text: "The translator will have to transmit the same ambiguity, but in order to do it the proper way he has to know what the author means" (Losman 51.) This means that the best solution is to contact the author and ask him for instructions directly. It is quite problematic if the author "no longer knows what he meant" (Losman 51), but the real problem appears "if the writer is dead, then of course you do not interpret just like that, you have to do research. You read other books by the same writer, read criticism about him, and so on" (Losman 51). On the other hand, if the author did not intend the ambiguity, but it came into being through poor phrasing or something similar, it is best to phrase the translation so as not to transfer the ambiguity to the target language. Research is essential when maintaining responsibility towards the text as well. When a translator encounters a part of text where there is lack of clarity or unknown terminology, research

is the key: “In some books the terminology is very specialized and you have to find the equivalent in your own language; translators are not always specialists of the field of course.” (Losman 51). Losman provided a complex example from the field of history where a translation of city names in the Middle Ages was needed, but since historians have different names for places in the Middle Ages depending on the language, “it can be difficult to find precise information” (51). In addition, when it comes to responsibility to the text “another problem in text are quotations” (Losman 51), since they appear quite often in non-fiction texts. There, the translator must be aware that he is “making a translation of a translation” (Losman 51), hence it is recommended that, if at all possible, the translator gets the original and checks if it could help in producing a higher quality translation. Regarding the responsibility towards the reader, Losman suggests that it is important to produce a translation that is entertaining and understandable: “Whether it is non-fiction or fiction, it has to be entertaining and also clear and easily understandable” (52). For that purpose, the author suggests providing some additional explanations not contained in the original text: “You may need to add some information or footnotes” (Losman 52). As Whitfield elaborates: “translating is not just about translating words but also about accompanying the text, and providing the new readers with a sense of the context in which the original work was written” (99). Whitfield provides an example of George Tombs’s translation of Marcel Trudel’s *Canada’s Forgotten Slaves: Two Hundred Years of Bondage* from French into English: “His timely preface clarifies terminology for the anglophone reader, including the meaning Trudel attached to specific geographical and political terms, and points out the need for more work to be done on this shameful part of Canadian history in regions of the country not researched by Trudel.” (99) Losman also suggests that, as a translator “you can try to add a little information, to emphasize some passages, add footnotes” (52) all for the purpose of bringing the text closer to the target audience. Finally, after the translation has been completed “everything must be reviewed and fact-checked and language checked and generally confirmed” (Morgan 185).

To summarize, translating non-fiction is quite complicated, some authors consider it to be even more complicated than translating fiction. When translating non-fiction, the translator has a responsibility towards the author, the text and to the reader. Cooperation with the author is very important in order to obtain accurate information on the way something was intended to be translated. Regarding the text itself, it can be very difficult to translate it since specific terminology is often used and it is not always easy to find the terminology necessary to create a proper translation of the original. Therefore, research plays a key role in translation of non-fiction texts. Besides researching terminology, it is well advised to research the author and his style of writing,

also, to appropriate the style of writing to the text that is translated. Some authors suggest adding information to the text or altering it so as to make it easier to understand. Finally, after the translation had been completed, it is necessary to go over the translation once more and check all the facts and the writing, since it is easy to make a mistake with difficult non-fiction texts that require extensive research.

3. Nutrition in Non-fiction

3.1. Popularity of Nutrition in Non-fiction

Since the main part of this thesis is the translation of nutrition, it is necessary to show what nutrition is and how it is represented in the whole non-fiction genre. Firstly, the term "nutrition" shall be defined and then the popularity of nutrition in non-fiction shall be presented. This will be achieved by examining lists of top 30 best sellers in non-fiction and analysing how many of those books are related to nutrition. The lists of best sellers will be obtained from websites of publishing companies, i.e. from the website's category of non-fiction best sellers at the time of writing this thesis and from the *New York Times* best sellers list. Two publishing companies have been selected for this task since they have websites with the necessary filters to obtain results when searching specific topics, i.e. best sellers related to nutrition.

According to *en.oxforddictionaries.com* nutrition is "the process of providing or obtaining the food necessary for health and growth." It has also been defined as "food or nourishment" or "the branch of science that deals with nutrients and nutrition, particularly in humans". Therefore, all book related to these definitions shall be included in this analysis.

The first publisher whose list shall be examined is the *Penguin Random House*. It is a publishing company with a rich history dating back to the 1800s and it has operations in 20 countries worldwide. It is composed of 250 independent imprints and publishes a wide array of fiction and non-fiction books. In the top 30 non-fiction best sellers on the official website of *Penguin Random House*, only three titles were related to nutrition: *The Best Cook in the World: Tales from my Momma's Table* by Rick Bragg, *True Roots: A Mindful Kitchen with More Than 100 Recipes Free of Gluten, Diary, and Refined Sugar* by Kristin Cavallari and *Giada's Italy: My Recipes for La Dolce Vita* by Giada De Laurentiis. *The Best Cook in the World* by Rick Bragg has been categorized under "Biography & Memoir, Regional & Ethnic Cooking, Food Memoir & Travel", which indicates that it is a blend of several genres, but it primarily deals with the author's memories and with his mother's cooking. Therefore, for the purposes of this thesis it is considered a non-fiction book related to nutrition. *True Roots* by Kristin Cavallari is categorised under: "Cooking Methods, Diet & Nutrition", and deals mostly with recipes and healthy eating, therefore it is also considered as a non-fiction book related to nutrition. Finally, *Giada's Italy* by Giada De Laurentiis is categorized under: "Regional & Ethnic Cooking, Cooking Methods". It deals with the exploration of the author's Italian roots and recipes so it too, deserves a spot in the list of non-

fiction books related to nutrition. After examining the list of top 30 non-fiction best sellers on the *Penguin Random House*'s website, it can be noticed that only 10% of those 30 books is related to nutrition. This would indicate that this sub-genre of non-fiction is not very popular, but a list of non-fiction best sellers from another publishing company shall also be analysed.

HarperCollins was founded in 1817 and has publishing operations in 18 countries from all over the world. It has more than 120 branded imprints in the world and, as does *Penguin Random House,* publishes many books in the branch of fiction as well as non-fiction. On the official *HarperCollins* website where non-fiction best sellers are listed, as many as six of them are related to nutrition: *Medium Raw: A Bloody Valentine to the World of Food and the People Who Cook* by Anthony Bourdain, *Kitchen Confidential Updated Ed: Adventures in the Culinary Underbelly* by Anthony Bourdain, *Magnolia Table: A Collection of Recipes for Gathering* by Joanna Gaines, Marah Stets, *The Plant Paradox Cookbook: 100 Delicious Recipes to Help You Lose Weight, Heal Your Gut, and Live Lectin-Free* by Steven R. Gundry M.D., *The Plant Paradox: The Hidden Dangers in "Healthy" Foods That Cause Disease and Weight Gain* by Steven R. Gundry M.D. and finally *The Pioneer Woman Cooks: Come and Get It!: Simple, Scrumptious Recipes for Crazy Busy Lives* by Ree Drummond. The two books by Anthony Bourdain have been categorised under "Biography & Autobiography", but also under "Cooking", they primarily consist of the author's narrative, but also closely relate to food and therefore, nutrition. The two books by Steven R. Gundry M.D. both deal with nutrition as well, but are slightly different from one another. *The Plant Paradox* has been categorized under "Health & Fitness", but it mostly deals with diet and nutrition for the purpose of preventing diseases, therefore it deserves its spot on the list. *The Plan Paradox Cookbook* is similar to the aforementioned book, but its scope is not as extensive. It has been categorized under "Cooking" and it is, in general, a list of recipes that support the theory from the other Gundry's book, therefore it deserves a spot on the list as well. *Magnolia Table* by Joanna Gaines, Marah Stets has been categorised under "Cooking" since it is, essentially, a book of recipes that focuses on regional and ethnic dishes. It is therefore considered a non-fiction best seller related to nutrition. The same is valid for the final book on this list *The Pioneer Woman Cooks: Come and Get It!* by Ree Drummond, which is, in a general sense, a book of quick and easy recipes categorized under "Cooking". Out of 30 non-fiction best sellers on the *HarperCollins* website, six of them are related to nutrition, which is three more than on the website of *Penguin Random House*, although it must be noted that two of those books are written by Anthony Bourdain, who recently passed away, therefore his books may have gotten more attention than they would have received if he was still alive. Nevertheless, according to this analysis of non-fiction best sellers on the *HarperCollins*

website, it seems that mere 20% of them is related to nutrition. This is not much, but it is a 10% increase when compared to the bestselling non-fiction at the *Penguin Random House* website.

Another relevant source of information when it comes to popularity of nutrition in non-fiction is *The New York Times*. On their website, a list of top best-selling books is available, sorted by categories. For the purposes of this thesis, the category of "Non-fiction, Combined Print & E-book Non-fiction" has been selected, i.e. both printed and electronic versions of books have been considered. Three lists shall be examined, one from present time, another from five years ago and one more with regards to the earliest available data, i.e. seven years ago, in order to present the popularity of nutrition in non-fiction today and compare it to the situation in the past. After examining the list of top 15 non-fiction best sellers in present day, only one book related to nutrition was found on the list: *Kitchen Confidential: Adventures in the Culinary Underbelly* by Anthony Bourdain. This book appears on the *HarperCollins* website as well, and, as stated previously, this might be due to the recent death of the author. Nevertheless, statistically, 6.67% of non-fiction best sellers is related to nutrition in the week ending on 22 June 2018. This is the lowest percentage of all sources analysed so far. After examining a list of non-fiction best sellers for the week ending on 28 July 2013, i.e. approximately 5 years from the time of writing this thesis, no books seem to be related to nutrition. One book might be remotely associated to nutrition, *A Thousand Days in Tuscany: A Bittersweet Adventure* by Marlena De Blasi. It is categorized under "Travel: Europe and Biography & Memoir", but food is occasionally mentioned since the author is a chef, but it is not the primary concern of the book. However, recipes are mentioned in this book and it shall then be placed on the list of non-fiction books related to nutrition. On *The New York Times* best seller list for the week ending on 28 July 2013, which consists of 20 books, 5% of non-fiction best sellers is related to nutrition. On the list of non-fiction best sellers that was ending on 17 July 2011, no books, out of 20, were related to nutrition. This means that 0 % of books in question had anything to do with nutrition.

In conclusion, nutrition is not very popular in non-fiction. On the *Penguin Random House*, the popularity of nutrition in non-fiction amounted to 10%. When *HarperCollins* is in question, nutrition seems to have slightly gained popularity, since the figure has increased to 20%. When it comes to *The New York Times* best seller lists, the situation does not improve. In fact, the popularity has gone down. At the present moment, 6.67% of books on the list of bestselling non-fiction books is related to nutrition, while five years ago this percentage was 5% and seven years ago it was 0%; therefore, it might be feasible to conclude that the popularity of nutrition in non-fiction has increased in recent years. Out of a total of 115 non-fiction books that were examined,

only 11 of them, i.e. 9%, were related to nutrition, therefore it is possible to conclude that nutrition is not popular in non-fiction, despite the fact that it is possible that the popularity of nutrition has increased over the last 7 years. It is necessary to note that Anthony Bourdain, who recently passed away, wrote several books considered for the purpose of this analysis. This may have caused the popularity of his books to increase. If we were to deduct the three books written by him, the popularity of nutrition in non-fiction, in the analysis of selected sources, would drop from 9% to 7%. This could mean that popularity of nutrition in non-fiction may be even lower than initially thought.

3.2. Popularity of Non-fiction and Nutrition in Non-fiction in Croatia

It is a well-known fact that non-fiction is a familiar branch of literature all over the world and hence, in Croatia. In this part of the thesis, the popularity of non-fiction in Croatia will be explored and, subsequently, the popularity of nutrition in non-fiction in Croatia. A different approach will be taken to examine this than the one used when examining the popularity of nutrition in non-fiction in general. Websites of several publishing companies, i.e. bookstores will be examined to see if they publish non-fiction, how much of it is currently available and finally, to what extent nutrition is present in non-fiction. Since most of these websites do not have a list of best sellers in non-fiction, a different, more descriptive and individual approach will be taken when examining each of the following web sites: *http://www.alfa.hr, https://shop.skolskaknjiga.hr, http://www.ljevak.hr, https://planetopija.hr* and *https://fraktura.hr*.

The first publisher on the list is Alfa, one of the largest publishing companies in Croatia with a 40-year-old tradition of printing and selling textbooks as well as many other types of texts. On the Alfa website, there is a whole section dedicated to non-fiction books, which consists of a selection of 53 books. Unfortunately, not one of those non-fiction books is related to nutrition. These are mostly political, historical or religious non-fiction books. However, the website does offer a separate section of books named Cookbooks. Needless to say, all of the 32 books in this section are related to nutrition. However, these books are categorised separately and are not regarded as non-fiction on this website.

The second publishing house on the list is Školska knjiga. This publishing company was founded in 1950 and it specialises in education. However, it has published more than 50 thousand titles and over 450 million copies. On their website, a rich selection of 674 non-fiction books is available. The non-fiction books on this website have been sorted into five categories: “Popular non-fiction”, “Tourism and travel”, “Self-help, religion…”, “Art, architecture…” and finally “Health, gastronomy, home…”. Additionally, each category is further divided into sub-categories. For the purposes of this thesis, only the sub-categories of “Health, gastronomy, home…” shall be examined, since only the books in that category are related to nutrition. The sub-categories of the latter are: “Health, beauty and nutrition”, “Family and parenthood”, “Cookbooks and gastronomy”, “Home and garden”, “Hobby and sports” and “Pets”. Out of the six sub-categories listed, four of them contain books related to nutrition: “Family and parenthood”, “Health, beauty and nutrition” “Hobby and sports” and “Cookbooks and gastronomy”. The first sub-category contains a total of 65 books, the second one a total of 50 books, the third 12 and the last one 25

books. Only one book in the “Family and parenthood” is related to nutrition, the same applies to the “Hobby and sports” sub-category and out of the 50 books in the “Health, beauty and nutrition”, 19 books focus on lifestyle and exercise, while the remaining 31 focus on nutrition. All 25 books in the “Cookbooks and gastronomy” sub-category are related to nutrition. This means that a total of 58 books in the non-fiction category are related to nutrition, i.e. that 9 % of non-fiction books on the website is related to nutrition. It is important to note that textbooks, dictionaries as well as scientific and expert literature had categories of their own and were not regarded as non-fiction.

The third publisher on the list is Naklada Ljevak. It has been operating for approximately 50 years and has systematically published philosophical and sociological literature, significant works of local and global literature and psychology, religion, medicine, economy, politics books and books from many other areas. The website of this publisher’s bookstore shall be examined for the purpose of establishing the popularity of non-fiction and nutrition related non-fiction books. This publisher has a category dedicated to non-fiction, but as it has been the case before, no books in that category are related to nutrition. The non-fiction area is further divided into “Monographs”, “Political non-fiction (politics)”, “Memoirs”, “Conspiracy theories” and “Scientific non-fiction” sub-categories. The entire non-fiction area is comprised of 1049 works, which is quite an impressive selection. Books on nutrition are present, but they have been categorised under a different area: “Health, mind and body”, which offers a total of 752 books. This area has been further divided into seven sub-categories: “Alternative medicine”, “Fitness and exercise”, “Love and sex”, “Family and parenthood”, “Self-help”, “Nutrition and nutrition science” and “Pregnancy and motherhood”. Books related to nutrition can be found primarily in the “Nutrition and nutrition science” sub-category, but also in other sub-categories. Non-fiction books related to children’s recipes can be found in both “Family and parenthood” and “Pregnancy and motherhood” sub-categories. Furthermore, books on healthy eating and healing recipes can be found in the “Self-help” and “Fitness and exercise” sub-categories. The selection of non-fiction as well as non-fiction related to nutrition on the website of Naklada Ljevak is quite impressive, but it must be noted that nutrition related books have not been categorised under non-fiction, but under a thematic category of their own and as such they are therefore not suitable for statistical analysis.

Another publishing company to be examined is Planetopija. It started operating in 1995 and publishes books from the area of personal development and holistic approach to health, nutrition, spirituality and ecology. Just like the previous publisher, Planetopija has separate categories for non-fiction books and books related to nutrition. The two categories are named: “Non-fiction” and “Food and cooking”. The “Non-fiction” category has been further divided into 9 sub-categories:

“Philosophy”, “Natural sciences”, “Biographies”, “Humour”, “Culture of living”, “Travels”, “Organic growth and botanics”, “Protection of the environment” and “Social sciences”. The total number of books under the non-fiction category is 710, which is quite an extensive collection and presents a rich selection of topics. On the other hand, the category of “Food and cooking” has been divided into two minor sub-categories: “Books on food” and “Cookbooks”. To total number of books in the “Food and cooking” category is 31. This is not a figure as impressive as the one regarding non-fiction, but it indicates that nutrition is also of interest for this publisher.

Finally, a website of Fraktura publishing company has been examined. It was founded in 2002 and it publishes high quality fiction and non-fiction of authors from all over the world, primarily from Europe and Croatia. The website of this publisher is the only one to have only two main categories: “Fiction” and “Non-fiction”, which are then split into smaller categories. The non-fiction category has a total of 138 books and those have been placed under categories of: “History & politics”, “Biographies, memoirs and diaries”, “Art and culture” and “Culture of living”. The books which are of interest to us, i.e. non-fiction books related to nutrition, can be found under the “Culture of living” category, which has been further divided into categories of “Personal growth”, “Travel” and “Food”. The number of books categorised under “Food” is 7. Such a layout of books on the website allows for a calculation of the percentage of the books related to nutrition with regards to the total number of books in the category of non-fiction; this will be useful to determine the popularity of nutrition in non-fiction in a numerical sense. Therefore, the percentage of books related to nutrition in the category of non-fiction is 5%. Additionally, such a layout allows us to calculate the ratio of fiction books and non-fiction books on the website. The total number of fiction books on the website is 584, while the number of non-fiction books is 138 i.e., a total of 722 books. This would indicate that 81% of the books is fiction, while the remaining 19% is non-fiction. Less than 1% of the total number of books can be categorised as non-fiction related to nutrition, while 5% of all non-fiction books on the website is related to nutrition. The Fraktura website also has a top 10 list of fiction and non-fiction books. When examining the top 10 list of non-fiction books, no books on that list were related to nutrition.

In conclusion, non-fiction is well represented in Croatia, but not as popular when compared to fiction. According to the data from *https://fraktura.hr*, only 19% of all the books are non-fiction. Of course, this varies from one publisher to another. The selection of non-fiction books can be large, as illustrated by Školska knjiga, Naklada Ljevak and Planetopija websites, where the count of such books is 674, 1049 and 710 respectively. Fraktura offers a selection of 138 non-fiction books and Alfa offers 53 non-fiction books. The popularity of nutrition in non-fiction is low.

According to the analysis of websites such as Školska knjiga and Fraktura, the percentage of non-fiction books related to nutrition makes up only 9%, i.e. 5% of all non-fiction books available on those websites. On Alfa, Naklada Ljevak and Planetopija websites, non-fiction books related to nutrition were not categorised under non-fiction, but were given a category of their own, which made statistical analysis impossible. However, the number of non-fiction books related to nutrition published by Croatian companies ranges from 7 to 58, and possibly more at the Naklada Ljevak publisher, which indicates that, despite their relatively small quantity, non-fiction books related to nutrition are still being read in Croatia.

4. “Eat. Stop. Eat.” by Brand Pilon

4.1. About the Author

Brad Pilon grew up in Burlington Ontario and developed an interest in fitness and health at a young age. He was reading fitness magazines while he was still in elementary school and had a subscription to the *American Journal of Clinical Nutrition* at the age of 14. He started working at a local dietary supplement shop at 16 years of age. Following his passion for fitness and health, he graduated with a degree in Applied Human Nutrition.

After graduating from college, he started his career in the dietary supplement industry as a Research Analyst at a small supplement company seated near Toronto. Over the course of six years, he progressed to the position of a Research & Development Manager in the same company, which developed significantly over time. He saw the power supplements can have on the economy and had a premium access to the scientific world of health and fitness, as well as the knowledge on the power of marketing in the supplement industry. Nevertheless, he decided to leave that position and return to academia. He focused his studies on the metabolic effects of short term fasting. His book *Eat Stop Eat* is the result of the Graduate Research he did at the University of Guelph. In addition, he has authored the book *How Much Protein* and the workout programs *The Adonis Effect* and *Anabolic Again.*

The author’s goal is to help people lose fat and gain muscle in as simple a way as possible and avoid the abundance of misinformation present in the media (https://bradpilon.com/meet-brad).

4.2. Summary of "Eat. Stop. Eat."

Eat. Stop. Eat. is the book selected to serve as a case study for this thesis. This is a non-fiction book related to nutrition. The book deals with a simple way to reduce body weight, i.e. body fat and improve overall health. The author suggests that the most important thing is to maintain a caloric deficit, i.e. the amount of energy that is spent must be greater than the amount of energy that is taken in through food. The best way to achieve that, as the author suggests, is through fasting, i.e. willingly abstaining from taking in calories. One or two 24-hour fasting periods a week are suggested for weight loss. In addition, the author reflects on many popular diets and comments on their logic and efficiency. Also, many health benefits of fasting are listed, backed up with research and advice is provided on the best way to implement fasting into everyday lifestyle.

4.3. Terminological Analysis

The book selected for analysis is *Eat. Stop. Eat.* by Brad Pilon. Since the topic of that book is related to nutrition and nutrition science, there is enough terminology from that particular area available for analysis. A total of 70 terms have been selected.

The analysis is descriptive in nature and shall present the source language term, the selected target language term or terms, a comment on translation and the context, if the same term was translated with several different target language equivalents due to a given context. The methods of translation and arbitrary, thematic categories will be described for each of the terms, as well as other translation strategies, where appropriate.

The methods of translation are based on *A Textbook on Translation* by Peter Newark, but have been slightly altered for the needs of this analysis. In his textbook, Newark lists seven methods of translation: "Word-for-word translation, Literal translation, Faithful translation, Semantic translation, Adaptation, Free translation, Idiomatic translation, Communicative translation" (45-47). Since these methods were designed for translation of constructions above the world level, they will be pragmatically adapted to facilitate this terminological analysis. Only four of the seven methods mentioned above will be used in this analysis. The first one is literal translation: "The SL grammatical constructions are converted to their nearest TL equivalents but the lexical words are again translated singly, out of context" (Newark 46). For the purpose of this analysis, the literal translation method will be employed to categorise single word terms that were translated with a single word equivalent. The next method used is that of a faithful translation that "attempts to reproduce the precise contextual meaning of the original within the constraints of the TL grammatical structures. . . it attempts to be completely faithful to the intentions and the text-realisation of the SL writer" (Newark 46). Also, the faithful translation method will be employed to categorise phrases of two or more words that were translated with TL equivalents of those words within the constraints of the TL grammatical structures. Moreover, the method of semantic translation will be used. Newark notes that "semantic translation differs from 'faithful translation' only in as far as it must take more account of the aesthetic value (that is, the beautiful and natural sounds) of the SL text, compromising on 'meaning' where appropriate so that no assonance, word-play or repetition jars in the finished version" (46). For the purpose of this analysis, the semantic translation method will be employed to categorise phrases of two or more words translated by TL near equivalents that transfer the message of the source text better than the literal TL equivalents and hence, maintain the aesthetics of the SL text. Finally, "communicative translation attempts to

render the exact contextual meaning of the original in such a way that both content and language are readily acceptable and comprehensible to the readership" (Newark 47), it will be employed to categorise a word or a phrase translated with a new term that may contain an element of the TL literal equivalent with additional explanation or with a new, descriptive word or phrase that better fits the target language within the meaning of the SL term. Besides these, other translation strategies will be employed during translation and will be described during analysis of individual examples.

Another categorisation was applied for terms in question. It is an arbitrary categorisation that regards the topic certain terms deal with. These categories are "Diet and caloric management", "Body, nutrition and medicine" and "Physical activity". There is a total of 20 terms that fall under the "Diet and caloric management" category. This category includes all terms related to dieting, managing caloric intake and foods that facilitate caloric restriction. Furthermore, the category of "Body, nutrition and medicine" is comprised of 46 terms. This category includes all scientific terms related to nutrition and medicine as well as processes and states that affect the human body. Finally, the category of "Physical activity" includes 4 terms. This category includes the terms that include physical activity or characteristics that can be improved with proper diet or that aid the implementation of the diet recommended in the book.

The terms will be presented in groups according to the categories mentioned above and a concise summary of the analysis will be presented at the end of the chapter. The selected target language terms were selected with the help of many online dictionaries, corpora, translated abstracts of scientific papers and through general internet browsing.

4.3.1. Terms in the "Diet and Caloric Management" category

The terms in the "diet and caloric management" category will be presented by methods that were used during translation.

The following terms were placed into the "diet and caloric management" category and the method of "faithful translation" was employed during translation:

The first term is "weight loss". It was translated as "gubitak tjelesne mase". This translation was selected because "weight" in "weight loss" actually refers to "body weight", which was translated

as “tjelesna masa” and for the sake of consistency, this was kept in translation of the term in question.

The term “functional food” was translated as “funkcionalna hrana”. It is a straightforward translation since “funkcionalna hrana” is an accepted phrase in Croatian language and has the same meaning as its English language counterpart.

The term “caloric balance” was translated as “kalorijska ravnoteža” since both of these terms, in their respective languages, mean an equal intake of calories and expenditure of calories in a living organism.

The term “burning calories” was translated as “sagorijevanje kalorija”. This could have been translated as “potrošnja kalorija” and it would perhaps be slightly more understandable to the target audience and more precise in meaning, but the word “sagorijevanje” was preferred since it evokes the desired connotation of the word “burning”, which the author probably used purposefully.

The term “calorie intake” was translated as “unos kalorija”. This is another straightforward translation where a direct translation was successfully applied. The same is the case with terms “caloric deficit” and “artificial sweeteners” which were translated as “kalorijski deficit” and “umjetna sladila”.

The term “balanced diet” was translated as “uravnotežena prehrana”. This term is an exception in translation since the term “diet”, in this translation, is translated as “stil prehrane”. The reason is that the term “uravnotežena prehrana” is a well-established, recognised term in the Croatian language and a construction such as “uravnoteženi stil prehrane” might be ambiguous to the Croatian reader.

Finally, the term “creatine monohydrate” was translated as “kreatin monohidrat”. This is a well-established name for this supplement in the Croatian language. Here it could also be noted that naturalisation was employed. According to Newark “this procedure succeeds transference and adapts the SL word first to the normal pronunciation then to the normal morphology (word-forms) of the TL” (82).

The following terms were placed in the “diet and caloric management” category and the method of “semantic translation” was employed during translation:

The term “supplement” was translated as “dodatak prehrani”. The term of “suplement” was also available as a solution for this translation, but the term “dodatak prehrani” was opted for since it is a term that is in the spirit of the Croatian language.

The term “cycling carbohydrate intake” was translated as “rotiranje unosa ugljikohidrata”. Other solutions available were “cikliranje unosa ugljikohidata” or “kružni unos ugljikohidrata”. Word “cikliranje” was avoided since it is a literal translation of cycling and sounds awkward in the Croatian language and “kružni” was avoided because it seemed too general and that it would not transfer the meaning well.

The term “binge eating” was translated as “prejedanje”. Since “binge eating” is a phrase used to describe the action of eating large amounts of food at once, usually after a period of limiting food intake, it seemed proper to briefly paraphrase it as “prejedanje”. Another solution could be “prekomjerna konzumacija hrane”, but since “prejedanje” conveys the same message and is shorter, it was preferred.

The term “eating routine” was translated as “rutina prehrane”. Since “rutina jedenja” or “rutina hranjenja” would sound unnatural in Croatian language, a more neutral phrase was selected for the translation of “eating routine”. Other suitable translations would be “rutina uzimanja hrane” or “rutina konzumiranja hrane”, but “rutina prehrane” was selected due to its brevity.

The following terms were placed in the “diet and caloric management” category and the method of “communicative translation” was employed during translation:

The term “diet” was translated as “stil prehrane”. The fact is the term “dijeta” would also be able to transfer the meaning of the SL term in most cases, however this term brings a connotation of something that is temporary, i.e. of going on a diet, losing the extra body weight and then going back to the normal style of eating. In his book, the author wanted to point out that “Eat. Stop. Eat” is not something temporary, but a lifestyle. This is why the term “stil prehrane” was chosen; it conveys the meaning of the term “diet” but it does not drag the connotation of something temporary with it. It is a superordinate term since it covers temporary diets, but also diets that are permanent and integrated into a person’s lifestyle. Here, a translation strategy called “translation by a more general word (superordinate)” (Baker 26) was used. Another term that might have been used is “prehrana”, however this term is too general and would most likely confuse the reader. This is an appropriate translation for the term “nutrition”.

The term “caloric restriction” was translated as “ograničavanje kalorija”. Other options were available, such as “restrikcija kalorija” or “kalorijsko ograničavanje”, but “organičavanje kalorija” seemed like the most natural solution for a term that carries the meaning of limiting the amount of calories to be consumed.

The term “restrictive diet” was translated as “restriktivni stil prehrane”. Unlike in the previous example, a phrase such as “ograničavajući stil prehrane” would sound awkward and ambiguous. A reader could understand this term as a diet that restricts the consumption of certain foods, but it really just restricts the intake of calories and ensures that a caloric deficit is maintained; therefore, the preferred term is “restriktivni stil prehrane”.

The term “high protein diet” was translated as “stil prehrane s visokim unosom bjelančevina”. A translation such as “visokoproteinski stil prehrane” was not acceptable, since “protein” was translated as “bjelančevina”, not “protein” and a slight rearrangement of the world order was required in order to gain the final translation.

The term “dietary restriction” was translated as “ograničavanje unosa kalorija”. In its meaning the term is the same as the aforementioned “caloric restriction” and therefore, similar translation was used. The strategy of translation by paraphrase using a related word was used here: “this strategy tends to be used when the concept expressed by the source item is lexicalized in the target language but in a different form…” (Baker 37).

The term “dietary change” was translated as “usvajanje prehrambene navike”. Here the meaning of SL term was prioritized and the translation was paraphrased. Strategy of translation by paraphrase using a related word was also utilised here.

The term “dieting” was translated as “ograničavanje kalorija”. This term was selected due to the fact that “dieting” means practicing a restrictive diet, i.e. restricting calories and therefore, the term “ograničavanje kalorija” seemed more appropriate than e.g. “praćenje restriktivnog stila prehrane” or “prakticiranje restriktivnog stila prehrane”, which are accurate, but too long.

4.3.2. Terms in the "Body, Nutrition and Medicine" category

The terms in the "body, nutrition and medicine" category will be presented by methods that were used during translation.

The following terms were classified under the "body, nutrition and medicine" category and the method of "literal translation" was employed during translation:

The term "fat" was translated by two different terms, depending on the context in which it was used. It was translated as "mast" when referring to fat as a macronutrient, as in the following example:

"For example, it takes more Calories to digest protein than to digest carbohydrates or fats…"

"Primjerice, potrebno je više kalorija kako bi se probavile bjelančevine nego ugljikohidrati ili masti…",

However, it was also translated as "masno tkivo" when referring to fat as the accumulated tissue in the human body, as in the following example:

"This energy is stored in the form of fat and glycogen (the storage form of sugars and carbohydrates in our bodies)."

"Ta se energija pohranjuje u obliku masnog tkiva i glikogena (oblik šećera i ugljikohidrata pri njihovom pohranjivanju u tijelu)."

This was done because in some instances, using "mast" to refer to fatty tissue accumulated in the human body would make the translation sound ambiguous and unnatural, therefore, a more precise term was used where necessary, such as in the following example:

"Yet, they all were able to lose fat and get into 'contest shape'."

"No, svi su uspjeli smanjiti količinu masti i postići „natjecateljsku formu"."

"No, svi su uspjeli smanjiti količinu masnog tkiva i postići „natjecateljsku formu"."

It is important to note that "mast" was also used to refer to fatty tissue of the human body where such use would not cause the translation to sound unnatural. Translation of "fat" as "mast" is a literal translation, but its translation as "masno tkivo" can be considered communicative translation since it is an expanded version of the initial translation that contains additional explanations.

Moving on, terms “carbohydrate” and “protein” were translated literally as “ugljikohidrat” and “bjelančevina”. The term “protein” could have been translated as “protein” since it is an accepted term in the Croatian language, but “bjelančevina” is a well-established term and seemed more appropriate for this text.

The term “lean” was translated in three different ways due to the context it was used in. First it was translated as “nizak postotak masnog tkiva u tijelu”. There is no equivalent for this term in the Croatian language, so the translation strategy of translation by paraphrase using unrelated words was used. According to Baker, this is used “if the concept expressed by the source item is not lexicalized at all in the target language . . . the paraphrase may be based on modifying a superordinate or simply on unpacking the meaning of the source term…” (38). This can be noticed in the following example:

“Both groups of bodybuilders were unbelievably lean.”

“Obje su skupine imale nevjerojatno nizak postotak masnog tkiva u tijelu.”

Since the term lean refers to the human body, i.e. to the low amount of fat in the human body, it would be unnatural in Croatian to say something like “nemasna osoba” and therefore, it was necessary to make a paraphrase. Here, the method of communicative translation was used.

Furthermore, “lean” was also translated as “vitak”. This is a translation by a more general word (superordinate) since “vitak” means slender, i.e. a tall, thin person that does not necessarily need to be lean. This was used in the case where the source term had the same meaning as in the aforementioned example, but the context allowed the use of “vitak” as a near equivalent and almost no loss of meaning occurred:

“It is the easiest way to lose fat, feel fit and maintain a lean body…”

“To je najlakši način za gubljenje viška masnog tkiva te održavanje vitkog i zdravog tijela…”

Lastly, “lean” was translated as “nemasno” when it was used to refer to food, usually meat:

“I still recommend eating a variety of fruits and vegetables combined with lean protein…”

“I dalje preporučujem da jedete raznoliko voće i povrće u kombinaciji s nemasnijim izvorima bjelančevina…”

Another term might have been used, such as “krto”, but it seemed a bit archaic and therefore “nemasno” was selected.

Furthermore, terms “glycogen” and “metabolism” were translated literally as “glikogen” and “metabolizam”. The same applies to the terms “lipolysis”, “norepinephrine”, “epinephrine”, “glucagon”, “cholesterol”, “diabetic” and “macronutrient”, which were translated as “lipoliza”, “norepinefrin”, “epinefrin”, “glukagon”, “kolesterol”, “dijabetičar” and “makronutrijent”. These terms have direct equivalents in the Croatian language and the procedure of naturalisation was used in the translation process.

The term “obesity” was translated as “pretilost”. The term “gojaznost” was considered as well, but since there is virtually no difference in their definitions on the Croatian language portal, “pretilost” was preferred as a matter of personal preference.

The term “nutrition” was translated in two different ways. It was translated as “prehrana” when it referred to nutrition in general, i.e. to food, nourishment and the like. This can be seen in the following example:

“There are some obvious benefits in studying fasting as a way to find the truth behind nutrition and fat loss.”

“Postoji nekoliko očitih prednosti kod proučavanja posta kao načina za otkrivanje istine o prehrani i gubitku tjelesne mase.”

However, when referring to the branch of science that deals with food and nutrients, it was translated as “nutricionizam”:

“On top of this, I also reviewed hundreds (not an exaggeration) of research papers, and re-read several of my nutrition textbooks.”

“Povrh toga, proučio sam na stotine znanstvenih radova (bez pretjerivanja) te više puta pročitao svoje udžbenike o nutricionizmu.”

The following terms were placed in the “diet and caloric management” category and the method of “faithful translation” was employed during translation:

The term “nutritional method” was translated as “metoda nutricionizma”. This term was selected because the SL term refers to a scientifically proven method, therefore it could have been translated as “znanstveno dokazana metoda”, but since it also refers to the scientific branch of nutrition, translation of “metoda nutricionizma” was chosen.

The term “fasted state” was translated as “stanje posta”. It is a direct translation of the SL words into TL within the constraints of the TL grammatical structures. The same applies to the terms

“starvation mode”, “metabolic process”, “muscle cells”, “blood stream”, “muscle mass”, “skeletal muscle mass”, “blood glucose level”, “fat oxidation”, “growth hormone”, “blood sugar level”, glycemic index”, “fatty acids”, “health benefit”, “insulin sensitivity”, “health claim”, “fight of flight hormones”, “marker of health” and “bio-feedback” which have been translated as “stanje gladovanja”, “metabolički process”, “mišićne stanice”, “krvotok”, “mišićna masa”, “skeletna mišićna masa”, “razina glukoze u krvi”, “okisdacija masti”, “hormon rasta”, “razina šećera u krvi”, “glikemijski indeks”, “masne kiseline”, “zdravstvena blagodat”, “inzulinska osjetljivost”, “tvrdnja o zdravlju”, “hormoni borba-bijeg”, “pokazatelj zdravlja” and “povratna biološka informacija”.

The term “thermic effect of food” was translated as “termički učinak hrane”. The option of “termički efekt hrane” was also available and is used in the Croatian language, but “termički učinak hrane” was preferred since it is more appropriate for the Croatian language.

The term “gene expression” was translated as “genski izražaj”. Solutions such as “ekspresija gena” or “genska ekspresija” were also available, but “genski izražaj” was decided on due to the use that term in a scientific article.

The following terms were placed under the “diet and caloric management” category and the method of “semantic translation” was employed during translation:

The term “fed state” was translated as “stanje sitosti”. Synonymy was used in this translation and, according to Newark, this means using “a near TL equivalent to an SL word in context where a precise equivalent may or may not exist” (84). In this case, precise equivalent for “fed” would be “uhranjen” or “nahranjen” and a phrase such as “stanje uhranjenosti” might sound unnatural in the Croatian language. Therefore, a synonym “sitost” was used, which could be translated back to English as “full” and the result is a natural sounding phrase in the Croatian language, i.e. “stanje sitosti”.

The term “intermittent fasting” was translated as “povremeni post”. Synonymy was used in this instance as well since literal translation of intermittent would be “isprekidan” or “naizmjeničan” which would result, if used, in an unnatural construction in the Croatian language. Therefore, a synonym “povremeni” was used, which would be “occasional” or “periodical” if back translated.

The term “body weight” was translated as “tjelesna masa” despite the fact that literal translation would be “tjelesna težina”. This is due to fact that “težina” is expressed as a force, while “masa” expresses the amount of matter in an object. “Težina” can be used conversationally in the meaning of “masa”, but for the purpose of this translation, term “tjelesna masa” was selected.

The term “nutrient” was translated as “hranjiva tvar”. Translating “nutrient” as “nutrijent” was also an option, but the synonym “hranjiva tvar” was selected as a well-established term in the Croatian language.

The following terms were placed in the “diet and caloric management” category and the method of “semantic translation” was employed during translation:

The term “body fat” was translated as “masno tkivo u tijelu”. Other solutions such as “tjelesna mast”, “masnoća u tijelu” or “mast u tijelu” were considered, but ultimately rejected as unnatural and ambiguous.

The terms “basal metabolic rate” and “resting metabolic rate” both refer to the calories spend by the human body when resting and were translated as “bazalni metabolizam”. The term “metabolic rate” was not translated literally as “metabolička stopa” or “stopa metabolizma”, but simply as “metabolizam”. In this context, translating “metabolic rate” as “brzina metabolizma” would result in a phrase with unnecessary elements “bazalna brzina metabolizma”. However, when the term “metabolic rate” appeared independently, it was translated as “brzina metabolizma”.

The term “uncoupling protein 3 mRNA” was translated as “mitohondrijska bjelančevina razdvajanja 3 mRNK”. Other solutions for this were available such as “protein razdvajanja”, “dekuplujući pretein” and “razdružujuća bjelančevina”, but the final translation was selected because it most extensively describes the SL term.

The term “plasma insulin” was translated as “inzulin u krvnoj plazmi”. Expansion of the term “plasma” was made to “krvna plazma” in order to further explain what was meant by this term.

4.3.3. Terms in the "Physical Activity" category

The terms in the "physical activity" category will be presented by methods that were used during translation.

The following terms were placed in the "physical activity" category and the method of "faithful translation" was employed during translation:

The terms "isometric strength", "anaerobic capacity" and "aerobic endurance" were translated as "izometrička snaga", "anaerobni kapacitet" and "aerobna izdržljivost". These are well-established terms in the Croatian language and the TL terms seemed appropriate as equivalents for the SL term.

The following term was placed in the "physical activity" category and the method of "communicative translation" was employed during translation:

The term "resistance exercise" was translated as "vježba snage". Other solutions such as "vježba s utezima" and "vježba s otporom" were considered, but since "resistance exercise" mostly involves strength training, term "vježbe snage" was selected as the one most natural and fitting. The strategy used here was translation by paraphrase using a related word.

To conclude, a total of 70 terms was analysed. Of this number, 20 terms or 28% of all terms were placed in the "Diet and caloric management" category. In this category, the most frequent translation method is faithful translation with a total of 9 terms translated by this method, i.e. 45% of all terms in the category. Seven terms, i.e. 35% of all terms in the category were translated by the communicative translation method and 4 terms, i.e. 20% of all terms in the category were translated with the semantic translation method. The "Body, nutrition and medicine" category comprises 46 terms, i.e. 66% of all terms. Out of all the terms in this category, 15, i.e. 32% of them were translated with the literal method of translation and 22 of those terms, i.e. 48% were translated with the faithful translation method. Four of them, i.e. 9% were translated with the semantic translation method. The remaining 5 terms, i.e. 11% were translated with the communicative translation method. Finally, the category of "Physical activity" contains 4 terms, i.e. 6% of all terms. Three of those terms, i.e. 75% of them were translated with the faithful translation method and only one of them, i.e. 25% with the communicative translation method. In the translation of all 70 terms, the most common translation method was the faithful translation method, which was used on 34 terms, i.e. 49%. The second most common translation method is the literal translation

method with 15 terms, i.e. 21%, followed by the communicative translation method with 13 terms, i.e. 19%. Finally, the semantic translation method was used on a total of 8 terms, i.e. 11%.

Other translation strategies were used, such as: the strategy of translation by paraphrase using a related word, the strategy of translation by paraphrase using an unrelated word, synonyms, expansion, and naturalisation.

5. Conclusion

The genre of non-fiction was defined as a branch of literature whose primary feature is dealing with factual, real information. Everything that has ever been written as non-fiction was based on facts established in the real word, however, this can be written in different styles. Non-fiction writers can borrow writing techniques that are usually used in fiction writing, such as narrative storytelling, but when dealing with rich, informative texts, elements such as illustrations and charts are often used to facilitate understanding. There are several ways to make a division within the genre of non-fiction. Three such divisions have been explored in this thesis. Firstly, according to Stewart, there are five types of non-fiction: "Traditional, Browsable, Narrative, Expository literature, Active titles" (12). Secondly, according to *The Finnish Association of Non-fiction Writers,* there are seven genres of non-fiction: "Research literature, Reference works, Manuals, Educational materials, General non-fiction, Children's non-fiction, Opinion books" (1). Finally, publishers make a distinction between two different types of non-fiction: subject-oriented non-fiction and author-oriented non-fiction. Regarding the translation of this specific genre, many difficulties may arise. Specific terminology is often used and proper equivalents are not always easy to find; it is also recommended that an open communication with the author should be established if there are ambiguities that need to be resolved. If that is not possible, extensive research of the author's other writings is necessary to decide on the best possible translation.

The popularity of nutrition in non-fiction was analysed through the examination of websites of world-renowned publishing companies and the *New York Times* best sellers lists. It seems that nutrition is not very popular in non-fiction. On the website of *Penguin Random House,* the percentage of books related to nutrition on the list of the best selling non-fiction books was 10%, and on the website of *HarperCollins* it was 20%. On the *New York Times* best seller lists, this percentage was 6.67% in June 2018, 5% in July 2013 and 0% in July 2011. The popularity of nutrition in non-fiction is low, but according to the trend noticeable from the data gathered from the *New York Times* best seller lists, there is a chance of an increase in the years to come. Regarding the popularity of non-fiction and non-fiction in Croatia, websites of five publishing houses in Croatia were explored: *http://www.alfa.hr, https://shop.skolskaknjiga.hr, http://www.ljevak.hr, https://planetopija.hr* and *https://fraktura.hr*. Non-fiction is well represented on these websites, although usually not as well as fiction, e.g. on the Fraktura's website, only 19% of all the books are non-fiction and the remaining 81% is fiction. Nevertheless, the number of non-fiction titles on the aforementioned websites ranges from 53 to 1049, which still provides quite a wide selection

for the readers. The percentage of books related to nutrition within the genre of non-fiction is 9% on the Školska knjiga website and 5% on the Fraktura website. This would point to a low popularity of nutrition in non-fiction. Other websites offer nutrition books, but under a special category, i.e. they were not categorised under non-fiction. Nevertheless, the number of non-fiction books related to nutrition, as classified by the Croatian publishers, ranges from 7 to 58 and possibly more at the Naklada Ljevak website. The popularity of these books is not great, but they are still being read in Croatia.

In the terminology analysis of "Eat. Stop. Eat." By Brad Pilon, a total of 70 terms was analysed. The terms were placed into categories depending on the topic they deal with and were also sorted by methods of translation used when translating them. The "Diet and caloric management" category contains 20 terms, i.e. 28% of terms. The most common translation method used here was the faithful translation method (9 terms, i.e. 45%), followed by communicative translation method (7 terms, i.e. 35%) and semantic translation method (4 terms, i.e. 20%). The "Body, nutrition and medicine" contains 46 terms, i.e. 66% of all terms. The most common translation method used here was the faithful translation method (22 terms, 48%), followed by the literal translation method (15 terms, i.e. 32%), the communicative translation method (5 terms, i.e. 11%) and the semantic translation method (4 terms, i.e. 9%). The "Physical activity" category contains 4 terms, i.e. 6% of all terms analysed. The most common translation method used here was the faithful translation method (3 terms, i.e. 75%), followed by the communicative translation method (1 term, i.e. 25%). With regards to translation of all terms, the most common translation method used was the faithful translation method, used on 34 terms, i.e. on 49% of all terms. The second most common translation method is the literal translation method, which was used with 15 terms, i.e. 21%, followed by the communicative translation method, used with 13 terms, i.e. 19%. Finally, the semantic translation method was used on a total of eight terms, i.e. 11%. Other translation strategies were used, such as: the strategy of translation by paraphrase using a related word, the strategy of translation by paraphrase using an unrelated word, synonyms, expansion, and naturalisation.

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7. Appendices

7.1. “Eat. Stop. Eat.” Source Text

Eat. Stop. Eat.

The Radical New Approach to Nutrition

That Can Burn Fat, Improve Your Health

and Might Just Save Your Life

Brad Pilon

The information in this book is for educational purposes only. The information in this book is based on my own personal experiences and my own interpretation of available research. It is not medical advice and I am not a medical doctor.

The information within this book is meant for healthy adult individuals. You should consult with your physician to make sure it is appropriate for your individual circumstances. Keep in mind that nutritional needs vary from person to person, depending on age, sex, health status and total diet.

If you have any health issues or concerns please consult with your physician. Always consult your physician before beginning or making any changes in your diet or exercise program, for diagnosis and treatment of illness and injuries, and for advice regarding medications.

Brad Pilon, Strength Works, Inc.

Contents

Eat Stop Eat Frequently Asked Questions

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Preface

Preface

Take a second before reading this book and think about all the diets you have heard and read about in recent years. Each diet had its own little hook, that made it unique, and each diet had thousands of loyal followers that swore that their diet was the ‘only' diet that worked.

Now think about the evidence. I will use bodybuilding as an example. Picture two groups of professional bodybuilders in contest shape ready to step on stage; their veins popping out everywhere, skin tight, body fat almost nonexistent.

The first group is bodybuilders from the 1950's and 1960's. These bodybuilders were able to get into phenomenal shape using low-fat, high-carbohydrate, moderate-protein diets. The second group is bodybuilders from the 1990's and beyond. They get into phenomenal shape using very different moderate-fat, low- carbohydrate, and high-protein diets.

Both groups of bodybuilders were unbelievably lean. Both groups used various supplements and drugs. However, both groups had very different nutrition plans. Yet, somehow they all managed to get their body fat down to unbelievably low levels.

Some bodybuilders ate six meals a day, some ate more than a dozen. Some ate red meat, some did not. Some did hours of cardio, some didn't do any at all. Yet, they all were able to lose fat and get into ‘contest shape'.

This is because for short periods of time, every diet will work if it recommends some form of caloric restriction. And if you follow a calorie restricted diet you will lose weight, guaranteed. The problem is, you simply can't follow a restrictive diet for a long period of time. Sure, a truly dedicated individual can follow a very restrictive

diet for 12 weeks and get into phenomenal shape. With the right amount of dedication, a person can even look like a model from the cover of a fitness magazine. And a very small, very unique group can do this for years on end. For the rest of us, this way of eating is too restrictive, too intrusive on our lives, and far too limiting to be done effectively for any real length of time.

Now, what if I told you that long restrictive diets aren't necessary for weight loss? What if I told you that there is a way to eat and a way to live that can give you amazing health benefits, help you lose weight, and that does not involve any prolonged periods of food restrictions, eating schedules, supplements or meal plans? Would you be interested?

In the following pages I am going to share with you a discovery that is the result of countless hours of research, years of schooling, a career in the sports supplement industry and an obsession with nutrition.

I am going to present you with the reasons why I think most diet plans are not necessary, too restrictive and ultimately too complicated to work long term. And most importantly, I am going to describe what I believe to be the single best way to eat and to live that will help you lose weight and keep it off, without any of the complex plans, rules and equations that is typical of most diets. After all, I don't consider this a diet. It's a way of eating that can ultimately grow into a way of life.

I must warn you in advance, many of these ideas are ‘controversial' in that they don't go along with current nutrition trends. I promised myself when starting this project that I would not just ‘accept' the current rules of nutrition just because they happened to be the rules that are currently *en vogue*. After all, as our bodybuilders in the example prove, many different styles of nutrition have resulted in the development of astonishing physiques.

So even though the ideas in this book may be radical now, in twenty years, they just might be the new rules of nutrition!

I am positive that if you read this book with an open mind, you will find that everything I have written makes sense. It may be different then what everyone else is telling you, but it is proven by a large amount of scientific research, and it can change your life.

I hope you enjoy the book.

Your author,

Brad Pilon

How it All Started

How it All Started

It was a year ago today that I walked away from my career in the sports supplement industry. Don't get me wrong, it wasn't a bad split, and I didn't want to give up on the industry altogether, I just wanted to start fresh.

To fully explain myself, I have to take you back about twenty years.

I have always been obsessed with exercise, health and nutrition. Before the age of ten, I owned a very impressive collection of *Muscle & Fitness*, and a couple of years later, *Men's Health* magazines. I can remember reading about bodybuilders like Lee Haney, Arnold Schwarzenegger and Lou Ferrigno and all of the articles about diet and exercise programs. It was these articles that peaked my interest in the science behind fat loss.

At sixteen, I had a subscription to the *American Journal of Clinical Nutrition*. I would read any research paper that involved nutrition and fat loss. It took me about a day to read each article because I had to stop and check almost every word in a medical

dictionary.

At seventeen, I started working at a local supplement store. This was my first official step into the health and nutrition industry and I have never looked back.

When I started studying nutrition at University, I had only two goals - To learn everything I possibly could about nutrition and metabolism and to graduate with honors. And in the spring of 2000, I accomplished both of them.

Immediately following graduation, and with a surprising mix of good luck and great timing, I was hired to be a Research Analyst at one of the world's leading supplement companies.

Fast forward to June of 2006. I had just spent the last six years of my life working in one of the most secretive industries in the world. During this time, I had been entrusted with protecting some of the most confidential information in the entire industry. I was the person responsible for the inner dealings of our Research & Development Department. Unfortunately, this was part of the problem.

Part of my job was to review bodybuilding and fitness magazines. I was constantly reading about the ‘latest and greatest' diet method. After years of reading magazine after magazine, I didn't know what to believe anymore. Each month, it seemed like the newest diet methods contradicted the diet methods that were in last month's magazines. It felt like the weight loss industry was full of nothing but misinformation.

When it came to the science of losing weight, every ‘nutrition guru' and ‘expert trainer' had his or her own theories on what did and didn't work. After years of reading and evaluating all of these nutrition and diet programs, I was actually starting to believe the hype myself!

Despite all of my formal education in this very field, theories like high protein diets and cycling carbohydrate intakes eventually started to sound logical to me, even

though I had never come across any convincing research to support any of these theories.

After all, they were just theories. Some were based on science, while others were complete gibberish. Many were contradictory to one another, and others defied the basic laws of thermodynamics and science. However, I noticed a funny thing about the industry; if an idea is published enough, and if enough people accepted it, it became true, no matter how inaccurate it really was.

Whoever said, “you can say the same lie a thousand times but it doesn't get any more true,” has obviously never been involved in the nutrition industry!

The bottom line is that I got into the sports supplement industry for the same reason I eventually left. I wanted to understand the true rules of weight loss, and I wanted to figure out how we should really eat.

I ended up leaving my career in the industry so that I could write this book.

Introduction

Introduction

As part of my background research for this book, I made it my goal to uncover the true scientific facts behind weight loss and nutrition.

Now, I'm not talking about the scientific facts that are thrown around every day by food companies and marketing gurus. You know, the ‘*eat this, not that*' facts or the ‘*recent research has shown*' facts. I wanted to find the cold, hard, truths. I was looking for the nutritional equivalent of death and taxes.

My first step in this quest was to read every nutrition and diet book I could get my hands on. In one short year, I read and re-read the following books:

The Atkins revolution, Protein power, Body for Life, The Zone, The South Beach Diet, French Women Don't Get Fat, The Warrior Diet, The Metabolic Diet, Volumetrics, The Obesity Myth, What to Eat, the Omnivore's Dilemma, Real Foods, Food Politics, as well as various ‘ underground' books on diet and nutrition like Dan Duchaine's *Body Opus.*

On top of this, I also reviewed hundreds (not an exaggeration) of research papers, and re-read several of my nutrition textbooks. I even went so far as to enroll in graduate school to study Human Biology and Nutraceutical Sciences, and let me tell you, it took an almost unhealthy desire to uncover the truth to drive me to re-enroll in school after a seven year hiatus, with a pregnant wife and a busy consulting job!

So what did all of my research uncover? Well I can tell you that there are indeed two absolute truths when it comes to nutrition and weight loss.

1) Prolonged caloric restriction is the only proven nutritional method of weight loss

and

2) Human beings (nutritionally speaking) can only be in one of the following states: fed or fasted.

That's it. In my opinion these are the only two facts that are undeniable. Everything else is open for debate. This is the problem with nutrition today - it's made out to be so complicated and confusing that nobody knows what to believe.

The result of most scientific research seems to do nothing more than add to the already confused and muddled nutritional theories and diet recommendations that exist, and the cause is clear as day - research on nutrition and food is no longer conducted to improve our health and well being. It is conducted as a method to get us to buy one product over another, and it's all based on us being ‘constant consumers'.

As far as I can tell, most research being conducted on food and nutrition these days is

done simply for the purpose of marketing. This is because the money that funds nutrition research typically comes from a food or supplement company. This ‘donation' or grant comes with the expectation that the research will produce a health claim or other marketing claim that the company can then advertise as a selling feature for their product. As it turns out, health claims on foods and supplements can be incredibly lucrative, and the politics behind nutrition are undeniable.

It was in a book titled “*What to Eat*” by renowned author and researcher Marion Nestle, where I read the following quote - “*The real reason for health claims is well established: health claims sell food products*.”[1] I couldn't agree more. The bottom line is that research creates health claims, and health claims sell products, whether the product is some new ‘functional' food or the latest diet program, if research says it works, it will sell more, guaranteed.

Very soon into my research I began to realize that the research on weight loss had become so skewed with politics that it has turned into the world's most ironic oxymoron. After all, the research was trying to uncover the completely backwards idea; ‘w*hat should we eat to lose weight?!'*.

When I realized that almost all nutrition research was working under this completely backwards paradigm, I understood that I had only one choice. If I was to avoid all of the bias and vested influence in today's nutrition research then I had to go back to the absolute beginning. I had to conduct a thorough review of exactly what happens to human beings in the complete absence of food.

The Fasted State

The Fasted State

The definition of fasting is quite simple. I've read through countless dictionary entries and website descriptions of fasting, and have decided that the best definition of fasting is the following: ***“The act of willingly abstaining from some or all food and in some cases drink for a period of time.”*** The key word in this definition is “willingly” as it is the difference between fasting and starving. Other than this one

small difference, the net result is the same - the purposeful abstinence from caloric intake over a given period of time.

There are some obvious benefits in studying fasting as a way to find the truth behind nutrition and fat loss. The most important of which is that people with vested interests in selling products have no interest in studying fasting.

Fasting automatically rules out the use of any sort of food, health supplement or functional food. Much to the dismay of food companies, you can't put fasting into a pill and sell it, and as we already discussed, the purpose of most nutrition research these days is the development of new products. So by default, because you do not consume anything while you are fasting, research on fasting contains very little bias from large food company funding (After all, why would a food company spend money proving there is a benefit to eating ***less*** of their products?).

Another benefit of studying fasting is that there is a large volume of research that has been conducted, and more research comes out every day. Fasting has been around since, as near as I can tell, the beginning of recorded history. Almost all major religions have a degree of fasting built into them, and there are many recordings throughout history of various people fasting for different reasons.

In fact, Dr. Michael Eades, author of "*Protein Power*" suggests in an entry to his online blog that fasting may even be the way our ancient Paleolithic ancestors ate[2]:

> *"In thinking about the process I came to the conclusion that intermittent fasting was probably the way Paleolithic man ate. We modern humans have become acculturated to the three-square meals per day regimen. Animals in the wild, particularly carnivorous animals, don't eat thrice per day. They eat when they make a kill. I would imagine that Paleolithic man did the same."*

As Dr. Eades points out, it makes logical sense that our ancestors starved intermittently, depending on the availability of food. There is also evidence to support the fact that many different cultures around the world currently fast. Many people fast for religious or spiritual reasons, and even as a method of weight control. However, in North America, with the exception of fasting for religious purposes, the practice of fasting has all but disappeared.

The Disappearance of the Fasted State

The Disappearance of the Fasted State

As I stated in the beginning of this book, nutritionally speaking the human being can only be fed or fasted. By saying this, I mean that we are in the process of eating and storing the calories that come from our food, or burning these same calories as we burn stored energy. This energy is stored in the form of fat and glycogen (the storage form of sugars and carbohydrates in our bodies).

Our bodies are designed to eat food when food is available and use the calories we stored when food is scarce. These are our only two options. Consider them the Yin and Yang of nutrition and health.

1) Eating and storing calories
2) Not eating and burning calories.

Fasting is the simplest method our body has for maintaining its caloric balance. Store a little when we eat, burn a little when we don't eat. The problem is that recent research suggests that we spend as much as 20 hours a day in the fed state[3]. We are constantly eating and storing food and we never really give ourselves a chance to burn it off.

So the yin and yang of fed and fasted has been replaced by a constant fed state, where we helplessly try to figure out how to continue eating, and somehow lose weight at the same time. This is a very scary scenario when you consider the fact that our bodies are designed to store fat.

Because we were meant to be in a constant cycle of feeding and fasting, our bodies are designed to store fat when we over eat, so we can burn it later, when we have no choice but to under eat.

Imagine a hunter who has caught and eaten an animal, and foraged around and found some berries. Once the meat is gone and the berries have all been picked, the hunter has no choice but to move on in search of more food. This is how our bodies were designed to function.

So if our bodies were designed to feed and then fast, why doesn't anyone fast anymore?

I think it is because the whole concept of fasting for weight loss and health has been villainized in western society as it goes directly against one of the most basic principles of business - Supply and Demand. To the food industry, the idea of people eating less is bad for business!

Consider this; each day in the United States, the food industry produces enough food to supply every single person with almost 4000 Calories[4]. On top of that, 10 billion dollars per year goes into advertising this food[5]. It would be a huge financial disaster for many food companies, if all at once, everyone in the United States decided not to eat for one day out of the week.

This is why the food and nutrition industry is willing to suggest many different theories on how to lose weight, as long as it means we continue buying and consuming foods.

Think of all the diet suggestions you know. They all rely on the continued intake of food. *Eat six small meals a day. Eat high protein. Eat breakfast (It's the most important meal of the day). Eat cereal. Eat high calcium. Eat whole wheat. Take diet pills.* Whatever the recommendation, it always revolves around us constantly consuming food and food supplements.

After all, this is how companies refer to us - we are consumers (not people). And if you look up the word ‘consumer' in the thesaurus you find the synonym ‘customer'. How many times have you heard a company representative say things like, “We value our customer”? Well of course they do, we buy (and consume) their products! Without us, there would be no profits and no company.

In a day and age where so many people are trying and failing to lose weight, it seems improbable that the answer is simply dieting. In fact, in his very controversial book “The Obesity Myth” Author Paul Campos states that he does not believe that dieting is an effective method of weight loss. Indeed, Mr. Campos goes so far as to say the idea that “People could lose weight if they really wanted to” is in fact, a lie[6].

Now, I'm not willing to go quite as far as Mr. Campos; however, I am willing to say that every single one of today's popular diets is doomed to fail in the long term. In my opinion, no matter how strong your willpower, it will eventually be overridden by the power of marketing, advertising, and the lure of great tasting food. After all, no one really wants to diet, we just want to look better with less fat on our bodies (Dieting just happens to be a means to this end).

All of this begs the question - ‘have we been led to overlook the simplest form of reducing calories and losing weight - short periods of fasting, in an effort to keep us consuming?' The answer seems to be a resounding ‘Yes!'

Forget Everything You Have Ever Read About Fasting

Forget Everything You Have Ever Read About Fasting

The amount of anti-fasting misinformation that can be found on the internet is astounding. This is despite the fact that our bodies were designed to fast, and that almost every major religion and culture has some sort of fasting built into its rituals.

Information on fasting and dieting is prevalent in cyberspace, and should be read with extreme caution. Ridiculous statements such as "*fasting deprives your body of nutrients and does nothing to help you modify your dietary habits*", and "*The weight loss from fasting comes entirely from muscle*" can easily be found on the net. Typically, these statements are followed by more of the same old nutrition mantra *"eat multiple small meals a day*", eat "*high protein foods every 2-3 hours", "avoid milk and dairy products*" and all the other popular ideas about dieting.

The amazing thing is almost all of the scientific research I reviewed provided evidence in direct opposition to the misinformation found on the internet.

I found very convincing evidence that supports the use of short term (as brief as 24 hours) fasting as an effective weight loss tool. This included research on fasting's effect on your metabolism and muscle, and on fasting's effect on exercise and performance. What made this even more interesting is that this type of fasting not only helps you lose weight, but also vastly improves many markers of health.

Fasting and your Metabolism

Fasting and your Metabolism

In my review of fasting, I found some very interesting information, most of which flies directly in the face of much of today's accepted 'rules of nutrition'. Most startling is the fact that being in a fasted state for short periods of time does not decrease your metabolism.

If you have read any of today's popular diets, you know that they are all based on this idea. The story they are telling goes like this; if you lower your calories too much, then you will stop losing fat because your body has entered ‘starvation mode' and your metabolic rate will slow to a stand-still. This is the nutrition ‘gospel'. However, it turns out that this is actually not true.

Let me explain.

Our metabolism is based on the energetic costs of keeping the cells in our bodies alive. For example, let's say we put you in a fancy lab and measured the amount of calories you burned in one day sitting on a couch doing nothing. Let's assume that number was 2000 Calories. This would be called your basal metabolic rate; 2000 Calories would be the amount of Calories you need to eat to match the amount you burn simply being you.

Now, lets say you moved around that day, perhaps 30 minutes of walking, you might burn an extra 100 calories bringing your daily total to 2100 burnt calories. Your basal metabolic rate is always 2000, and then any extra energy you expend moving your body (such as exercise) is added to that number.

So in this example, you are going to burn 2000 calories per day no matter what you do. So why are we being told that our metabolism will slow down if we don't eat for an extended period of time? The answer lies with an interesting metabolic process of eating called *“The thermic effect of food”*, and some clever interpretation of this rather simple process.

The act of eating can increase your metabolism by a very small amount, this is referred to as ‘the thermic effect of food'. This increase in metabolism is a result of the extra energy your body uses to digest and process the food. It takes energy to break down, digest, absorb and store the food once you eat it. This ‘energy cost' has been measured in laboratory settings and is part of the basis for popular diets that promote the metabolic cost of one nutrient over another.

For example, it takes more Calories to digest protein than to digest carbohydrates or fats, so some diets recommend substituting some protein for carbohydrates and fat assuming this will burn more calories. Although this is scientifically true, the amount of extra calories this dietary change will cause you to burn is very small and will hardly make a difference to your overall calories burned in any given day.

As an example, the idea of eating an extra 25 grams of protein so you can burn more calories is ridiculous to me. If you eat an additional 25 grams of protein you would be adding 100 Calories to your diet just so you can burn 10 calories! The more logical approach would be to just not eat those 100 Calories.

Almost all of the calories you burn in a day result from your basal or resting metabolic rate (the calories it takes just to be alive). Beyond that the only significant way to increase the amount of calories you burn in a day is to exercise.

The research on metabolism and calorie intake is remarkably conclusive. I was able to find the following research studies that measured metabolic rate in people that were either fasting, or on very low calorie diets:

In one study, researchers found that the when they made people fast for 3 days, their metabolic rate did not change[7]. This is 72 hours without food. So much for needing to eat every three hours!

In another study by a different group of researchers, people who fasted every other day for a period of 22 days also had no decrease in their resting metabolic rate[8].

In addition, people who were on very low calorie diets and on a resistance exercise program (i.e. lifting weights) did not see a decrease in resting metabolic rate, and these people were only eating 800 Calories a day for 12 weeks!

In another interesting study, women who ate half the amount of food that they normally eat for 3 days saw no change in their metabolism either[9].

In still more studies, there was no change in the metabolic rate of people who skipped breakfast, or people who ate 2 meals a day compared to 7 meals per day[10,11].

The bottom line is food has virtually nothing to do with your metabolism. In fact, your metabolism is much more closely tied to your bodyweight. If your weight goes up or down, so does your metabolism. The only other thing that can affect your metabolism (in both the short term and longer term) is exercise and weight loss. Even in the complete absence of food for three days, your metabolism remains unchanged.

I find it troubling that every physiologist, medical doctor and PhD that I have talked to seems to understand this, but many of the personal trainers, nutrition gurus and supplement sales people are completely unaware of this scientific fact. This is truly a testament to the amazing marketing that can be found on the internet, and in fitness and nutrition magazines.

This got me thinking; if food intake has no effect on metabolic rate, what other myths have I been led to believe as *'scientific facts'*?

I took it upon myself to examine the science behind many of today's popular diets. I found no difference between any of them in their effectiveness over the long term.

People choosing higher protein, lower carbohydrate diets (similar to Atkins or The Zone) tended to see slightly better weight loss, at least in the short term. However, when studies extended to over 6 months and up to a year, these differences tended to even out[12].

I found only one thing to be consistent with all of these diets. That is the success of any diet can be measured by how closely people can follow the rules of the diet and how long they can maintain caloric restriction. In other words, a diet's success can be measured by how well they can enforce my first nutrition 'truth' - **'prolonged caloric restriction is the only proven *nutritional* method of weight loss'**.

So from what we have seen there is a very large amount of science that supports the

use of short term fasting as an excellent way to create a dietary restriction, and seems to be an effective and simple way to lose body fat. And we have also determined it does not have a negative effect on your metabolism, so far so good. But what type of effect does it have on your muscles?

Fasting and Exercise

Fasting and Exercise

Your muscle cells have the ability to store sugar as something called ‘glycogen'. The interesting thing about this process is that your muscles lack the ability to pass this stored sugar back into the blood stream. For example the glycogen stored in your right leg muscles can only be used by your right leg muscles. It cannot be ‘donated' to your liver or brain or any other part of your body. This basic rule goes for all of your muscles.

During a period of fasting, the systems of your body are relying on fat, and the sugar that is stored in your liver for energy. Your muscles still have their own sugar that they need for exercising. The sugar in your muscles is used up quickly during high intensity exercises like weight training and sprinting.

Research completed back in 1987 found that a three and a half day fast caused minimal impairments in physical performance measures such as isometric strength, anaerobic capacity or aerobic endurance[13]. In other words, they found that a three-day fast had no negative effects on how strongly your muscles can contract, your ability to do short-term high intensity exercises, or your ability to exercise at moderate intensity for a long duration.

This means fasting does not negatively affect anaerobic short-burst exercise such as lifting weights, nor does it have a negative effect on typical ‘cardio' training.

Another study performed in 1988 found no change in soldiers who were exercising until exhaustion either right after a meal or after fasting for three and half days[14].

From this research we can see that you should be able to work out while fasted and not see any change in your performance.

The only situation where I think there may be a negative effect from fasting is during endurance sports like marathons or Ironman style triathlons, where you are exercising continuously for well over an hour[15,16]. These types of competitions require the athletes to eat during the actual event in order to maintain performance.

However, it should be noted that the "negative effect" that occurs from fasting before long endurance activity only effects an athlete's time until exhaustion. So the amount of time an athlete can exercise while fasted before becoming exhausted is less that the amount of time it takes for a fed athlete to become exhausted.

While the amount of time it takes before a fasted athlete becomes exhausted is decreased, it actually has positive effects on these athletes fat burning.

Athletes performing long endurance activity while fasted actually burn more fat then athletes who are fed. So depending on your goals, fasting before endurance exercise may actually be beneficial.

I believe the perceived need to eat before a workout or a strenuous activity is more of a psychological need than it is a physical need. It was Ori Hofmekler, author of "*The Warrior Diet*", who pointed out that "Predators in the wild only hunt when they are hungry"[17].

Fitness expert Matthew Furey (who often practices short-term fasts) mentioned that back when he was a champion wrester in college he felt that he was faster, more alert and had better reflexes if he ate less before a meet.[18]

So from a psychological perspective, perhaps there may even be a benefit to exercising or competing while fasted.

Fasting and your Muscle Mass

Fasting and your Muscle Mass

The other great myth about dieting and fasting is that you will lose your muscle mass while you diet. This is completely false. Not only does reducing your caloric intake not cause your metabolism to slow down, it also does not result in a loss of your hard-earned muscle.

There is one imperative rule that goes along with this statement: you have to be involved in some sort of resistance exercise, like lifting weights.

While long term caloric restriction on its own can cause you to lose muscle mass (such is the case with hospital patients who are on a low calorie diet and confined to bed rest), the combination of caloric restriction with resistance exercises has been proven to be very effective at preserving your muscle mass.

Research on men and women undertaking a very low calorie diet found that even with a 12 week long diet consisting of only 800 Calories and only 80 grams of protein per day, the people in the study were able to maintain their muscle mass as long as they were exercising with weights three times per week[19].

In another study, men restricted their caloric intake by eating 1,000 Calories less per day than they normally ate for 16 weeks. They took part in a weight training program 3 days a week and were able to maintain all their muscle mass while losing over 20 pounds of body fat![20]

In yet another study, women undertaking a reduced calorie diet for 16 weeks were also able to maintain their muscle mass by training with weights three times per week[21].

As long as you are using your muscles, they will not waste away during short periods of dieting. From my experience, in the sports supplement industry, I can tell you that

drug-free bodybuilders and fitness athletes constantly undergo 16-20 week periods of very low calorie diets, while maintaining all of their muscle mass as they prepare for bodybuilding contests.

Another diet myth busted! So much for the ‘starvation mode' or eating 50 grams of protein every couple of hours - the key to muscle mass is resistance exercise; your diet has almost nothing to do with it!

And since your diet has very little to do with your muscle mass, then short periods of fasting definitely won't cause your muscle any harm (as long as you continue to work out regularly).

Note: For additional reading, I highly recommend Craig Ballanytne's www.turbulencetraining.com and John Barban's www.6minutecircuits.com as excellent resources for workout routines and strength training information.

Fasting and Hunger

Fasting and Hunger

The true feeling of real hunger is difficult to explain and I'm not sure many of us have ever really experienced it. We have felt the withdrawal of not being able to eat when we wanted to, but true hunger is reserved for those who have gone weeks without eating, and are not sure when or where their next meal will come from.

Consider this; most people get noticeably hungry if they have gone more than 2 to 3 hours without eating, but during this time, metabolically speaking, they are still in the fed state. This means their bodies are still processing the food they ate at their last meal. In other words, there is still unused energy from their last meal in their system, and they are already feeling hungry enough to eat again. How can this be?

Most likely, this is a learned response to a combination of metabolic, social and

environmental cues to eat. Remember how I mentioned that the food industry spends 10 billion dollars per year advertising food? Well, it turns out that this advertising is very effective.

According to Brian Wansink, author of "*Mindless Eating*" we make as many as 200 food related decisions everyday and are subjected to countless food advertisements[22]. In my opinion, this is why almost all diets fail. It is virtually impossible for us to always be consciously in control of what we eat and how much we eat. There are just too many environmental factors working against us!

For the most part, I believe that hunger is a learned response. Our desire to eat is determined by a combination of our body's response to the amount of food we have eaten, and our mind's response to all of the environmental factors around us (such as TV commercials and snack food packaging colors, fonts and graphics).

Babies are not born hungry, and often times have to be woken to eat during the first few days of their lives. Gradually, we get used to eating at certain times, or with certain people. We get used to having a certain volume in our stomachs, and we get used to the pleasure of certain foods.

In fact, our constant desire to eat may even be related to a form of addiction. In the best selling diet book, "*The South Beach Diet*", author Dr. Arthur Agatston refers to our love of sugar as our 'Sugar Addiction'[23]. He may have been onto something with that statement. According to a recent article in *Scientific American Mind,* by psychiatrist Oliver Grimm, recent research suggests that drug addiction and binge eating are very similar in 'neurobiological terms'[24]. In other words, the brain reacts to food the same way it would react to a hardcore drug like cocaine.

From my own personal experience with fasting, I can tell you that you do get used to the feeling. It becomes easier to manage as your body gets used to the feeling of having a truly empty stomach.

I'm not certain if this is because you switch from fed to fasted at a quicker rate, or if it is just getting used to having an empty stomach. Whatever the case may be it does get easier. Even when you do feel ‘hungry' while fasting, the hunger sensations usually don't last more than a few minutes.

In “*The Warrior Diet*” Ori Homekler states that “*Throughout history, humans have had to contend with hunger, and not just because they were unable to afford food, or suffered from drought and famine. Learning to deal with hunger was also practiced intentionally, to make people tougher and stronger, to better handle life's hardships*.” [17]

Friends of mine who have adopted periods of fasting into their lives have reported a sense of ‘Freedom' during the day. Often times, periods of fasting have been associated with being more alert, ambitious, competitive and creative. Not only that, but you are no longer having to continuously plan your day around the timing of your next meal.

The Health Benefits of Fasting

The Health Benefits of Fasting

After reviewing all the research I could find on fasting, I was astonished at all the health benefits that fasting offers. Do you remember in the late 1990's when the Mediterranean diet became all the rage? The idea behind the diet was based on research conducted in Crete (Greece). The research suggested that the diet of the Mediterranean region was superior to the North American diet.

On average, the Cretes were healthier than North Americans, with less incidence of cardiovascular and heart disease. Researchers attributed this improved health to a high daily intake of whole grains, fruits, vegetables and olive oil.

That made pretty good sense as these are all accepted ‘healthy' foods. However, recent reviews by a group of researchers at University of Crete, School of Medicine suggest

that one very important factor was left out of this research. In the Greek Orthodox Christian Church there are some very lengthy fasting recommendations[25].

The Orthodox Church specifies a combination of dietary restrictions and fasting for a total of between 180 and 200 days out of every year. While this is by no means conclusive evidence, it did suggest that a very healthy group of people were not only consuming plentiful amounts of healthy foods, but also took part in routine periods of fasting[26].

By the time I had finished my research, I had come to the conclusion that short term (one to three days) intermittent (never in a row) fasting, was not only an effective and easy way to cut calories and thus lose unwanted body fat, but it was also associated with many amazing health benefits.

In dozens of published peer reviewed scientific studies, short-term intermittent fasting has been found to have the following health benefits:

- Decreased body fat & body weight
- Maintenance of skeletal muscle mass
- Decreased blood glucose levels
- Decreased insulin levels & increased insulin sensitivity
- Increased lipolysis & fat oxidation
- Increased Uncoupling Protein 3 mRNA
- Increased norepinephrine & epinephrine levels
- Increased Glucagon levels
- Increased growth hormone levels.

Quite a list I'm sure you will agree. What's even more amazing is that many of the benefits were found after as little as 24 hours of fasting!
From my years of experience in the supplement industry, I can tell you that if you could make a pill with all these claims, you would have a hundred million dollar a year product! These claims are that impressive!

So if fasting can do all of these amazing things, it begs the question - should we all be fasting?

In order to find the answer, let's take a take a closer look at some of these claims.

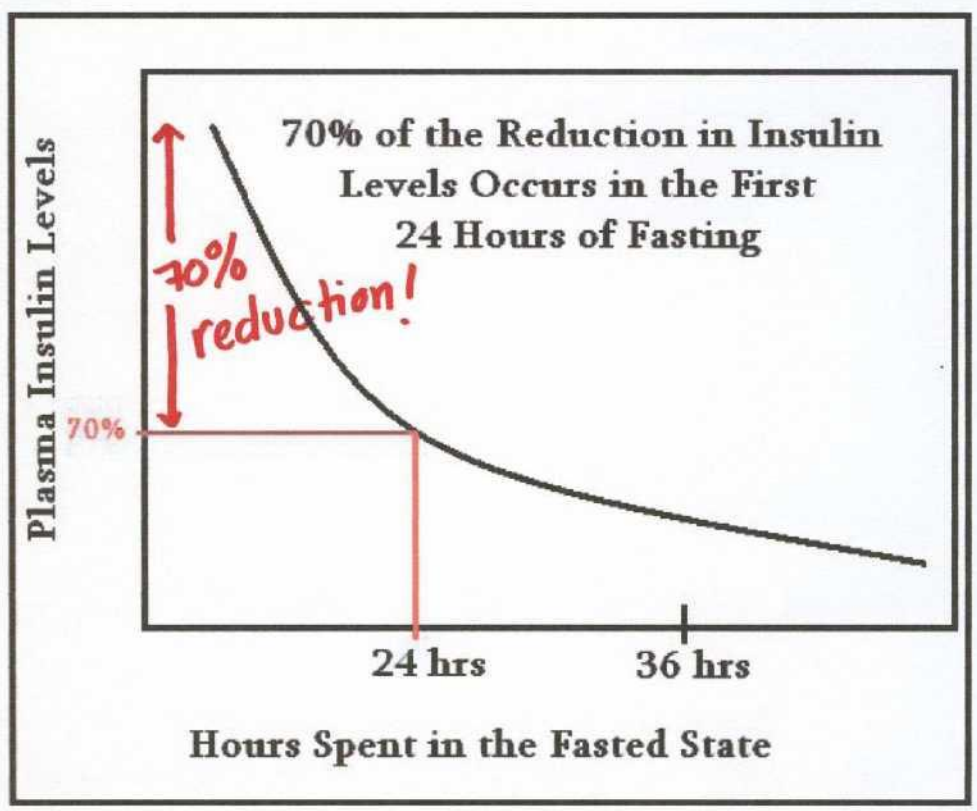
Decreased Insulin Levels & Increased Insulin Sensitivity

Insulin is one of the most important hormones in your body. Every nutrition, medicine and physiology textbook has at least one chapter devoted entirely to the effects that insulin has on your body.

When you eat, the insulin levels in your body increase. The role of insulin is the storage of nutrients. In other words, insulin is the primary signal that tells your body to store the energy from your food as body fat and glycogen. When insulin levels are high, you are in storage mode, plain and simple. What's more, when insulin is elevated, you are unable to release fat from your fat stores - In other words, when your insulin is high, your fat isn't going anywhere.

Many popular diets, such as *The Zone* and *The South Beach diet*, are based around the idea of controlling your insulin levels. These diets apparently accomplish this by eating small frequent meals that have a low effect on your blood sugar levels. While eating frequent small meals, or meals with a low ‘glycemic index' (a measure of the meal's effect on blood sugar) may help you ‘control' or ‘even out' your insulin levels, fasting for as little as 24 hours has been shown to drastically reduce your insulin levels![27]

In research conducted on people who fasted for 72 hours, plasma insulin dropped dramatically, reaching a level that was less than half of the their initial levels. What's even more impressive is that 70% of this reduction happened during the first 24 hours of fasting[28].



Increased Lipolysis and Fat Burning

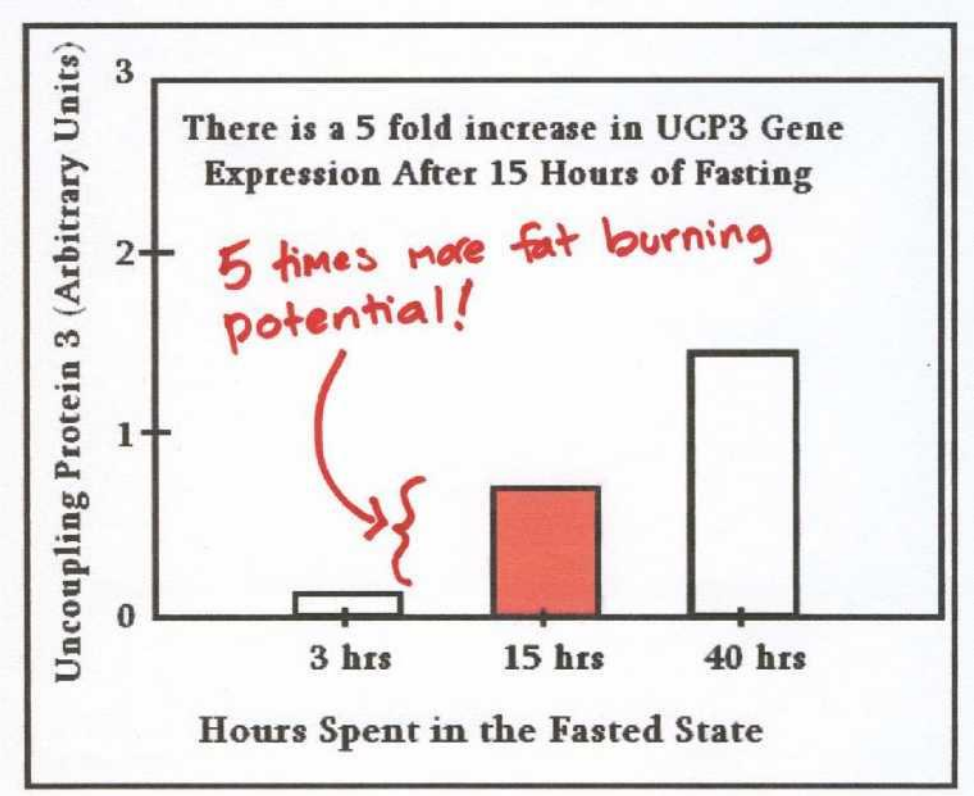
There are a few very important steps in the process of burning fat. First, your fat has to be ‘released' from your fat stores. Scientists call this lipolysis, and it involves the process of releasing the fatty acids that make up your fat, and moving these fatty acids into your blood stream.

After a series of steps that allow these fatty acids to get to the mitochondria (the furnace of every cell in your body) these fatty acids go through a process called oxidation. This is the final step of fat burning - Once this has happened your body fat has now been used for energy. It is gone and it cannot come back. Lets review that quickly; fat must be released from its storage spot, transported through your system, and get to a cellular furnace where it will be burned.

While we are resting, our muscles are the major contributor to our metabolic rate. During fasting our muscles start to switch over and start oxidizing fatty acid for fuel. In other words, when we fast, our muscles turn into fat burning machines.

Uncoupling Protein-3 is a very important protein found in our muscles that is associated with fat burning. Simply put, when fat burning increases so does the amount of Uncoupling Protein-3 in our muscles.

Amazing research has shown that as little as 15 hours into a fast, the gene expression for Uncoupling Protein-3 increases by 5 fold![29]



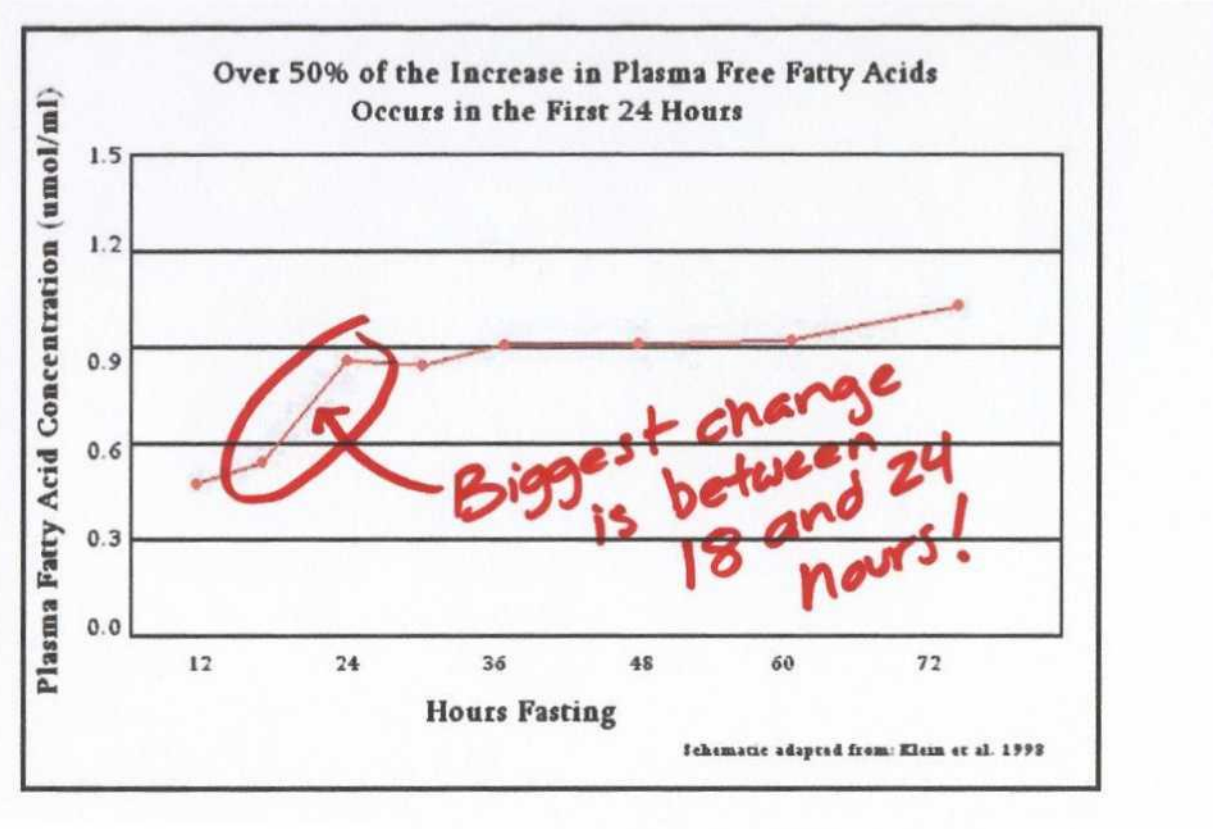
Fat burning is the goal of every diet. You should never lose weight without losing fat. In "*Protein Power*", Dr. Michael Eades goes so far as to recommend that we should "*Divorce ourselves from the notion that you want to lose weight*" and concentrate on losing fat[30].

Luckily, a 24-hour period of fasting shifts your body from the fed state to the fasted state, which causes large increases in both lipolysis (fat release) and fat oxidation (burning). Simply put, fasting allows your body to take a break from storing fat, and start burning it!

Probably the most revealing information in the research I have read was found in studies published by a group of scientists from the University of Texas, Medical Branch at Galveston. It examined how short-term fasting affects fat and sugar metabolism in our bodies.

After only 24 hours of fasting, the amount of fat being released from people's fat stores (lipolysis) and the amount being burnt for fuel (oxidation) had been significantly increased by over 50%.

This is a very significant increase in fat burning.



Increased Glucagon Levels

If we consider fed and fasted to be the yin and yang of metabolism, then the hormonal equivalent to fed and fasted could be thought of as insulin and glucagon.

Insulin is the dominant hormone in the fed state, which causes you to store food calories in the form of fat and glycogen. Glucagon is one of the dominant hormones in the fasted state that causes fat burning.

Quick review:
Insulin = Fat storage
Glucagon = Fat burning

The primary role of glucagon is to maintain your blood sugar levels while you fast. It does this by shifting the body into ‘burning' mode.

Glucagon has some amazing effects on our body, including maintaining our blood sugar levels, increasing fat burning, decreasing the production of cholesterol, and increasing the release of extra fluids from the body.

Because of the typical way we eat, we spend almost all of our time in an ‘insulin dominant' metabolism (remember Insulin = Fat storage). By adding fasting into your lifestyle, you allow your body to revert back to a natural balance between an ‘insulin dominant' metabolism and a ‘glucagon dominant' metabolism.

Increased Epinephrine and Norepinephrine levels

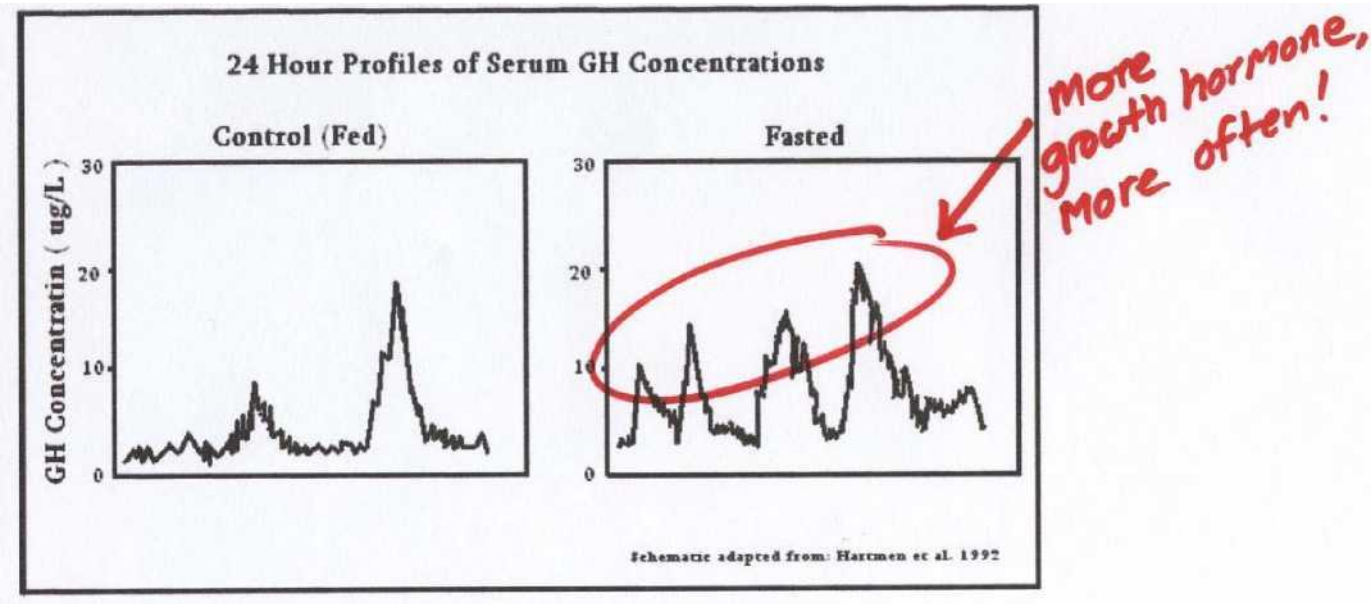
Epinephrine and norepinephrine are both fight or flight hormones, often called adrenalin and noradrenalin. When they are released into the blood stream, they trigger the release of glucose from energy stores, and increase fat burning. They also make you feel awake and alert. Fasting increases the amounts of both of these hormones in your blood. This is your body's way of maintaining your blood sugar levels and increasing your fuel supply by helping to release fatty acids from your fat stores.

Increased Growth Hormone Levels

Growth hormone is getting a lot of press these days. Rumor mills are buzzing that many top-level Hollywood celebrities are taking growth hormone because it helps burn fat, build muscle, and supposedly has ‘anti-aging' effects. Many supplement companies are scurrying around trying to find anything that will allow them to say their products can increase growth hormone.

The ironic thing I learned from all this research is that if you want large increases in the amount of growth hormone released in your body, all you have to do is fast. Research has shown that short-term fasting can increase growth hormone levels by nearly six fold[25, 31].

That's right, fasting can cause very large increases in the amount of circulating growth hormone. The same growth hormone that celebrities, bodybuilders and fitness models pay thousands of dollars for on the black market, can be easily had for free, just by fasting!



The rumor that taking growth hormone helps burn fat, build muscle and increases metabolism is actually supported by research[32,33]. However, the amazing connection between growth hormone and fasting has nothing to do with injecting growth hormone.

Fasting triggers the "growth hormone response", and this response is what prevents you from losing muscle while you fast[34,35]. And, since your muscle is largely responsible for your metabolism, growth hormone also plays a large part in keeping your metabolism elevated while you are fasting.[36].

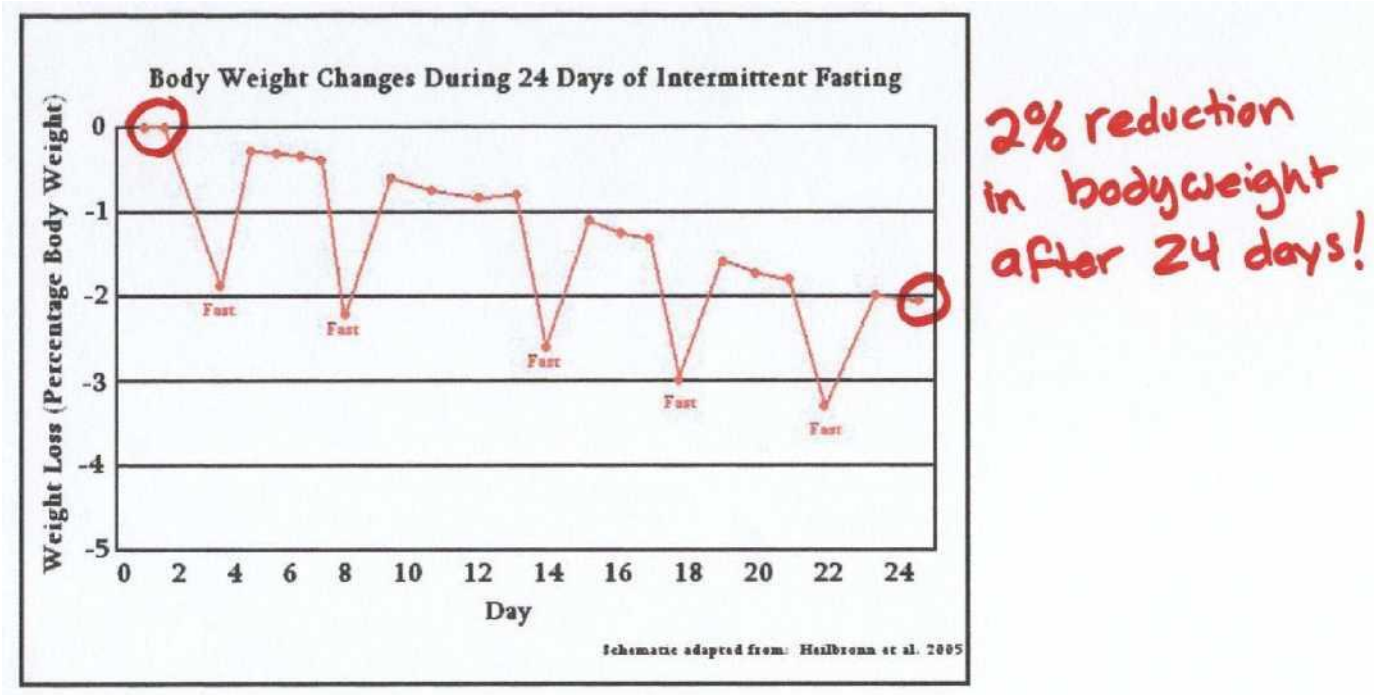
Not only does growth hormone prevent you from losing muscle while you fast, but it is also vitally important in the process of releasing your stored fat so it can be burnt for energy!

This "growth hormone response" to fasting is so important that some researchers have actually argued that in the yin and yang of fed and fasted, it is actually growth hormone and not glucagon that is the dominant hormone in the fasted stated because it causes fat burning and preserves your muscle mass[37].

Increased Weight Loss and Increased Fat Loss

As you can see, fasting sets you up perfectly for fat loss and weight loss. Metabolically it prepares your body by increasing all of the hormones necessary to increase fat burning. Added to that, it creates a large energy deficit, so your body has no choice but to start burning fat for energy.

Research shows that you will lose 2-3 pounds every time you fast[8]. THIS IS NOT ALL FAT. Much of this is extra body water being lost (insulin causes you to store extra water, so when insulin is low, you tend to lose water). You are also losing fat, but it's a slow and steady process. Most diets see a loss of one to two pounds of fat per week. Adding short term fasting into your lifestyle will have the same effect (just without the dieting).



People in studies who have used short-term fasting as a weight loss method managed to lose more weight in a ten-week period than people on a very low calorie diet.

Even more impressive is that the people who used fasting as a method of weight control maintained most of their weight loss over the course of an entire year. This is very different from the people who were on low calorie and very low calorie diets, who tended to regain all of their weight loss one year after their initial diet[38].

Health Benefits - The Conclusion

As you can see, for the vast majority of us, the answer to the question, "Should we all be fasting?" is a resounding YES!

For healthy people wanting a simple and effective way to lose weight, the combination of short-term fasting and exercise is an easy way to create a caloric deficit and has no negative impact on our metabolism or our muscle. Fasting for 24 hours, once or twice a week may be the easiest way to decrease your calorie intake by 20-30%, without having to sacrifice and restrict what you eat. It's like getting the benefits of an entire week of strict dieting, while only sacrificing for one or two days.

So with fasting we can create prolonged dietary **restriction (the only proven *nutritional* method of weight loss)** while only sacrificing one or two 24 hour periods in a week, allowing us to reset the **balance between fed and fasted.**

The best part of these findings is that since many of the health benefits from fasting occur in the first 24 hours; we can fast for short periods of time and **NEVER GO A DAY WITHOUT EATING!**

The Eat Stop Eat Way of Life

The Eat Stop Eat Way of Life

It is important to note right away that I do not consider this a diet program. There are no phases, no point systems, no weighing foods, no foods that are ever off limits. I'm not going to tell you that sugar is the cause of our obesity problem, because it's not. Neither is fat. The cause of our obesity problem is that we are failing to realize that we're looking for the answer in the wrong place. Obesity isn't created by one specific macronutrient in our diet. In fact, it's not the diet at all. In my opinion, the number one cause of our obesity epidemic is profit. As long as people profit from us eating, they will always find a way to make us eat. From my experiences, profits are the cause of our weight problems, food is just the tool. Just think if you owned a large food company, wouldn't you want everyone to eat as much of your food products as possible?

This is why Eat Stop Eat isn't a diet; it is a lifestyle based on the nutritional custom of including short-term intermittent fasting into your life. Basically, it's a way of life where you accept the idea of taking small 24 hour breaks from eating, and taking part in resistance exercises (working out with weights) at least 3 times a week.

That's it. The Eat Stop Eat lifestyle in a nutshell is a 24 hour fast once or twice a week, and a commitment to a workout routine. All my research has led me to the conclusion that this is the single best way to lose weight, to maintain muscle, and to reap all the amazing health benefits associated with fasting.

The reason I don't consider this a diet is because unlike all popular diets, the Eat Stop Eat lifestyle is a sustainable addition to the way we eat for the rest of our lives.

It is the easiest way to lose fat, feel fit and maintain a lean body, as it does not require any difficult nutritional planning. It does not require special shopping trips, exotic foods or expensive supplements. It simply asks you to refrain from eating ideally for two 24 hour periods every week.

Best of all, you never go a day without eating!

How to Fast

In order to fast for 24 hours, you can simply eat as you normally would until 6 pm on day one, and then fast until 6 pm the following day. As an example, you could start your fast on Monday at 6 pm and finish your fast on Tuesday at 6 pm. By fasting in this manner you manage to eat every day, however you also manage to take a 24 hour break from eating. More importantly, you break the horrible habit of constantly being in the fed state and thereby resetting your metabolic balance between being fed and fasted.

You can also adjust this for your own personal lifestyle. If 6 pm to 6 pm doesn't work for you, try going 2 pm to 2 pm instead. The Eat Stop Eat lifestyle is very flexible. If you were planning on starting your fast on Tuesday, but something came up and you had to go to dinner with friends, don't fret, you can simply start the fast the next day.

If you are sick, or aren't feeling well, then you don't have to fast. It's a flexible long-term solution. On some weeks you may fast once, others twice. It's all up to you and your personal preferences. Just do what works for you!

During the times when you are eating, simply maintain the caloric intake that you **normally** eat, while trying to obey what I like to call ‘the golden rule of eating':

“*Eat less, but enjoy the foods you eat. Eat lots of fruits and vegetables, and lots of*

herbs and spices. And maybe most importantly, spend less time stressing over the types of food you are eating."

Pay special attention to that last sentence. All of the posturing and positioning by nutrition experts, and all of the scientists touting their research studies and their 'so called' conclusions are all based on the assumption that we are eating continuously every day.

If you start living the Eat Stop Eat lifestyle, all of this becomes a moot point. We can reap the benefits of a low calorie diet, and the benefits of short term fasting, while eating in a way that is sustainable and enjoyable, just by adding in one or two 24-hour fasts into our week.

With as little as two fasting periods added into your week, you can create the equivalent of a 25% reduction in calories (it's actually 30%, but I factored in a 5% slip up). For a person eating 2,500 calories per day, that's the equivalent of reducing your calorie intake to 1,875 every day of the week! That's a 625 calorie drop, every day!

625 calories is the equivalent of removing an entire cheeseburger with a side order of fries from your diet, EVERY DAY!

The key to making Eat Stop Eat work for you is self-control. After you have completed your fast, it is important that you go back to eating as you normally would. Remind yourself that you do not need to reward yourself with extra-large helpings or extra desserts. The purpose of the fast is to add breaks to your *normal eating routine*.

The minute your fast is over, simply eat as you normally would. Again, no extra rewards, no giant portions, simply return to exactly the way you would normally eat.

I think this is a fair trade. While most diet programs ask you to give up certain foods, all I'm asking you to do is keep eating the way you normally eat. If you want to improve your nutrition while living the Eat Stop Eat lifestyle, go ahead.

Nothing but good things will happen if you incorporate more fruits and vegetables into your diet and cut back on the sugar, but do whatever is within your comfort zone. I believe the biggest health benefits will come from the fast, but all positive changes will help.

Here's another amazing benefit of the Eat Stop Eat lifestyle; research has shown that even if you were to gorge yourself on your eating days, to the point where you don't lose any weight at all, you will still see some of the health benefits associated with fasting[39].

With the Eat Stop Eat lifestyle, not only can you lose weight, but the research suggests that you can also improve important markers of health, such as your insulin sensitivity.

Living the Eat Stop Eat lifestyle is the simplest way to improve your health, without massively restricting the foods you are allowed to eat.

What to do while Fasting

Since this isn't a diet, it would be a waste for me to fill two hundred pages with recipes, food combining instructions or calorie and protein charts.

Doing this would be a complete waste of my writing time, and your time for reading it. Instead, the best thing I can do is give you some tips to help make the fast a little easier.

The number one thing you need to remember to do is to drink a lot of fluids; this will help you avoid getting thirsty, which is often mistaken as hunger.

First, in the morning start your day with a large glass of water. Black coffee and tea are also allowed during a fast. You may also find diet colas useful, and don't worry about artificial sweeteners during your fast, in my opinion the health benefits of fasting

far out weigh any worry about the intake of artificial sweeteners. Of course, this is your personal decision.

You may also find it helpful to stay busy while fasting. John Barban, Varsity Strength Coach and author of www.womensworkout.blogspot.com and www.6minutecircuts.com has been experimenting with fasting for the last 6 months. Recently he told me that, “fasting is easiest when I'm busy. I think if people's lives were a little more exciting they wouldn't need to eat so much to get some joy out of their day.” This statement is very true.

Food is a form of ‘bio-feedback'. It is a form of stimulus in our every day lives. So when parts of our days are lacking excitement or stimulation (like when we are sitting in a car stuck in rush hour traffic), we search out stimulation in the form of foods and snacks.

Have you ever had a really boring day at work? Did you ever notice how often you snacked, or made coffee? This is because you are replacing mental stimulation with food stimulation.

A little complex, but it's the short answer to why we should stay busy while fasting.

Other than staying busy, you can go about your day as if it was any other day. You can go to work, go shopping, go workout. Whatever it is you normally do in a day.

This is the beauty of the Eat Stop Eat lifestyle. It is the simplest way to lose fat, improve your health and well-being, without drastically changing the way you live.

Eat Stop Eat Conclusions

Eat Stop Eat Conclusions

By now I hope it's apparent that short periods of intermittent fasting, combined with a

regular resistance training program (lifting weights) is an easy and highly effective way to lose weight. It can also help correct some of the negative metabolic effects that come from spending so much time in the fed state.

While many diets tout plans, cookbooks and charts of acceptable and unacceptable foods, none of this is needed when you adopt the Eat Stop Eat lifestyle.

I still recommend eating a variety of fruits and vegetables combined with lean protein, but I emphasize that in the Eat Stop Eat lifestyle, you do not have to stress over what you choose to eat.

From this point forward, you can enjoy the foods you eat, and enjoy knowing that with the Eat Stop Eat lifestyle you can lose fat, build muscle, eat every day and not have to follow some crazy fad diet ever again.

Eat Stop Eat FAQ'S

Eat Stop Eat FAQ'S

Q: I want to lose fat and gain some muscle. I've been told that I need to eat large amounts of protein everyday to put on muscle mass. Won't fasting cause me to lose muscle?

No, as long as you are working out with strength training exercises you will not lose muscle. In fact, it is possible to gain muscle during Eat Stop Eat.

Q: I've been trying the Eat Stop Eat lifestyle for several weeks now, but occasionally I get headaches when I'm fasting, what gives?

There has been a lot of research on Ramadan fasting and headaches. It seems that women are particularly susceptible to headaches while fasting. This is not due to dehydration[40,41], and may actually be similar to withdrawal symptoms, similar to the headaches you get when you quit drinking coffee cold turkey. From my experience, if you experience headaches they do tend to go away after your first couple of fasts.

Q: I'm really enjoying adding fasting into my eating plan, but I'd still like to clean up the way I eat when I'm not fasting, any tips?

You can incorporate any diet style you like while you are following Eat Stop Eat. My personal opinion is that the general rules of eating 'lean and green' with lots of fruits, vegetables, herbs and spices is an ideal compliment to the Eat Stop Eat lifestyle, but you can incorporate any diet style you wish.

Q: What are things I can do other than fasting to help me lose fat?

My recommendation would be to use interval training in your exercise program and to follow a solid, well-designed fat loss workout plan.

Q: If I start the Eat Stop Eat Lifestyle, how fast will I lose weight?

It is a dietary truism that you can't take off in a day what you put on over years. With the Eat stop Eat lifestyle, you should be able to lose weight at a rate of 1-2 pounds per week.

Q: Do I need to take a multi-vitamin on the days that I am fasting?

No, a multi-vitamin is generally not necessary if you are eating a balanced diet. However, if you like taking multi-vitamins then by all means, continue to do so, they will not negatively affect the health benefits of fasting.

Q: I read that any weight loss from fasting is only water and muscle, not fat, and you regain the weight when you start eating again. Is this true?

This is not true. During the actual period of time when you are fasting your weight will be lower than normal. This is due to the fact that you have no food in your system, and your body has shed some excess water. However, with several periods of fasting, the weight loss you see is very real and it is indeed fat loss.

Q: I've heard that under-eating will slow my metabolism down and put me in "starvation mode" which will cause me to store more fat. Will this happen with the Eat Stop Eat lifestyle?

No. On the Eat Stop Eat lifestyle you never go a day without food, and you spend most of your days eating your regular diet without changing anything. Your daily

calories will only be lower on the days you start and finish your fast. The overall effect should come out to about a 15-25% calorie reduction over the entire week with no negative effects on your metabolism.

Q: Are there any specific supplements I should take while I am fasting?

If you have been asked by a qualified health care professional to take a certain supplement, then please continue to do so. However, I do not believe there is any need for extra or special supplements during your fast

Q: I've heard that short periods of fasting similar to the Eat Stop Eat lifestyle are being studied in animals. I've read it can increase their life expectancy. Is this true?

Yes. As a matter of fact this research is being done by Dr. Mark Mattson at the National Institute on Aging. Research suggests that animals age slower and live longer when they consume less calories. The research is showing that this effect can be achieved by eating less each day, or by fasting on intermittent days[42].

Q: Why do I have to fast for 24 hours? Couldn't I just do 18 hours, or 36 if I wanted more results?

The answer is two fold. First: According to the research, the 24-hour point is right in the middle of the maximum adaptation for fat burning. Second: Through trial and error, I as well as many of the initial test subjects on the Eat Stop Eat lifestyle, found that 24 hours was the least intrusive to their daily lifestyle. A 24 hour period made the most sense from a practical and scientific stand point.

Note: In actuality you're body begins to burn significantly more fat after approximately the 18 hour mark. This effect begin to level off after 30 hours. If you don't quite make it to the 24 hour point some days don't sweat it, you're still getting a benefit.

Q: I heard breakfast is the most important meal of the day. Will it affect me if I miss breakfast on a fast day?

There is no scientific evidence to prove that breakfast is any more important than lunch or dinner for adults. As a matter of fact there is no scientific evidence proving

three meals per day are any better than one.

Q: Can I follow the Eat Stop Eat Lifestyle if I am pregnant?

No. Eat Stop Eat should not be used by anyone who is pregnant or trying to get pregnant. After your pregnancy, consult your physician to see if Eat Stop Eat is suitable for you and your individual circumstances.

Q: I know that black coffee, diet pop and water are fine during my fasting periods, but what about sugar-free gum?

have used sugar-free gum during my fasts. Most of these products contain 2-3 Calories per piece, so I consider a couple of pieces of gum to be acceptable during a fast.

Q: I know you say that fasting releases norepinephrine and epinephrine, and that this should make me feel alert, but for me this doesn't happen. In fact, I sometimes get headaches and feel anxious after fasting. I can even feel this way only 2-3 hours after eating. What gives?

There is a growing body of research that suggests that many people may be addicted to sugar, and that sugar can have psychoactive attributes similar to many drugs[43]. Your headaches and anxiety may be a result of sugar withdrawal. From my experience, after a couple more fasting sessions these feelings should disappear.

Q: I'm a bodybuilder and I'm interested in trying fasting. Can I still take any of my supplements on the fasting day (I'm trying to gain muscle)?

Lucky for you, the one supplement that is proven to increase strength and muscle mass in the long term is creatine monohydrate. And, since creatine is not metabolized for energy and does not raise insulin levels, taking creatine on your fasting days is perfectly acceptable (However, I would still advice taking your creatine at the times when you are eating).

Q: My Dad is really interested in Eat Stop Eat, but he is diabetic, can he still try the Eat Stop Eat lifestyle?

Eat Stop Eat was designed for healthy people trying to lose weight. If your father wants to try Eat Stop Eat, he should only do so under the direct supervision of a

doctor or healthcare practitioner.

Q: In the beginning of Eat Stop Eat you say that it can improve your health and "might just save your life", these are some pretty bold statements, what gives?

Right now there is on going research on short-term fasting and its ability to improve certain markers of health. While it would be premature of me to say that fasting can help with a medical condition, I can say that it has been used with success in clinical research on people who suffer from asthma[44], and has been shown to lower inflammation[45] and is being studied for its potential to improve brain health[46].

Q: My daughter is 14 and overweight, can she try the Eat Stop Eat lifestyle?

Unfortunately, no, she cannot. All of the research conducted on fasting is done on adults; there is no way for me to know its effects on children. I only recommend Eat Stop Eat for healthy adults.

Q: With all the news about sugar being bad for you, shouldn't I be cutting down on the amount of sugar I eat if I want to lose weight?

You should, and you are. Think of it this way, If you are very diligent and watch the foods you eat day in and day out, skip desserts, and avoid many of the high sugar foods you normally eat, you might be able to reduce your sugar intake by 30%.

Alternatively, you could keep eating the way you normally eat, and fast for two 24-hour periods over the course of a week, and still reduce your sugar intake by 30%. By fasting for two days out of 7, you automatically reduce your sugar intake by about 30%, just by missing two 24 hour periods of eating. The Eat Stop Eat lifestyle is a great way to get the exact same result as a restrictive diet WITHOUT spending day after day monitoring every piece of food you put into your mouth.

Q: I've read that high protein diets can help with weight loss. Can I eat high-protein while doing Eat Stop Eat?

Of course. There are several research studies out there that suggest that a higher amount of dietary protein might be associated with an increased rate of weight loss (As long as the diet is calorie reduced). Most of the research I have reviewed have

had people eat between 100 and 150 grams of protein per day (not the crazy 250 gram per diets you read about in fitness magazines). If you like you can definitely try eating a higher protein diet while using Eat Stop Eat.

Eat Stop Eat References

Eat Stop Eat References

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7.2. “Eat. Stop. Eat.” Translation

Jedi. Stani. Jedi.

Radikalni novi pristup prehrani pomoću kojeg

možete sagorjeti višak masnog tkiva,

poboljšati zdravlje i možda si čak spasiti život

Brad Pilon

Naslov izvornika

Eat. Stop. Eat.

Informacije iz ove knjige namijenjene su isključivo za obrazovne svrhe. Informacije iz ove knjige temelje se na mojim osobnim iskustvima i vlastitim tumačenjima dostupnih istraživanja. To nisu savjeti liječnika, a ja nisam liječnik.

Informacije iz ove knjige namijenjene su zdravim odraslim osobama. Trebali biste se posavjetovati s liječnikom i provjeriti jesu li te informacije primjenjive s obzirom na vaše osobne

okolnosti. Pritom imajte na umu da se prehrambene potrebe razlikuju od osobe do osobe, ovise o dobi, spolu, zdravstvenom stanju i sveukupnoj prehrani.

Ako imate nekakvih zdravstvenih problema ili nedoumica, posavjetujte se s liječnikom. Uvijek se posavjetujte s liječnikom prije nego počnete s novim stilom prehrane ili planom tjelovježbe ili promijenite postojeći te da biste dobili dijagnozu i prikladnu terapiju za liječenje bolesti i ozljeda te savjete u vezi lijekova.

Brad Pilon, Strength Works, Inc.

Sadržaj

Predgovor

Predgovor

Odvojite koji trenutak prije čitanja ove knjige i razmislite o svim stilovima prehrane za koje ste čuli ili o kojima ste čitali posljednjih nekoliko godina. Svaki stil prehrane imao je svoju malu posebnost, nešto što ga je činilo jedinstvenim, a svaki od njih imao je tisuće odanih sljedbenika koji su bili spremni zakleti se da je njihov stil prehrane „jedini“ koji zapravo funkcionira.

Sada razmislite o dokazima. Koristit ću bodybuilding kao primjer. Zamislite dvije skupine profesionalnih bodybuildera u natjecateljskoj formi koji su spremni iskoračiti na pozornicu; vene iskaču posvuda, koža im je utegnuta, a postotak masnog tkiva u tijelu gotovo ravan nuli.

Prvu skupinu čine bodybuilderi iz pedesetih i šezdesetih godina prošlog stoljeća. Ti su bodybuilderi postigli fenomenalnu formu koristeći stilove prehrane koji su se sastojali od niskog udjela masti, visokog udjela ugljikohidrata i umjerenog udjela bjelančevina. Drugu skupinu čine bodybuilderi iz devedesetih godina prošlog stoljeća pa do danas. Oni su uspjeli postići fenomenalnu formu pridržavajući se sasvim drugačijih stilova prehrane koji su se sastojali od umjerenog udjela masti, niskog udjela ugljikohidrata i visokog udjela bjelančevina.

Obje su skupine imale nevjerojatno nizak postotak masnog tkiva u tijelu. Obje su skupine koristile dodatke prehrani i razne lijekove. Međutim, te su se dvije skupine koristile vrlo različitim stilovima prehrane. Ipak, svi su uspjeli smanjiti postotak masnog tjelesnog tkiva na nevjerojatno nisku razinu.

Neki su bodybuilderi jeli šest obroka dnevno, a neki i više od deset. Neki su jeli crveno meso, a neki nisu. Neki su proveli sate i sate na kardio treninzima, dok neki uopće nisu radili takve vježbe. No, svi su uspjeli smanjiti količinu masnog tkiva i postići „natjecateljsku formu“.

To je zato što će, na kratko vremensko razdoblje, svaki stil prehrane funkcionirati ako podrazumijeva neki oblik ograničavanja kalorija. Ako se pridržavate stila prehrane kojim se ograničava količina kalorija koju unosite, zajamčeno je da ćete smanjiti tjelesnu masu. Problem je u tome što se jednostavno ne možete pridržavati restriktivnog stila prehrane tijekom dužeg vremenskog razdoblja. Istina, uistinu discipliniran pojedinac može se pridržavati vrlo restriktivnog stila prehrane 12 tjedana i doći do fenomenalne forme. Uz dobru dozu predanosti, netko čak može izgledati i kao model s naslovnice fitness časopisa. A vrlo mala i vrlo rijetka skupina ljudi može to ponavljati više godina zaredom. Nama ostalima takav stil prehrane stvara previše ograničenja, nije prilagođen našim životnim stilovima i nameće previše pravila da bi ga se učinkovito pridržavali tijekom dužeg vremenskog razdoblja.

Što ako bih vam rekao da dugotrajni restriktivni stilovi prehrane nisu potrebni za gubitak tjelesne mase? Što ako bih vam rekao da postoji stil prehrane i način života koji vam može pružiti nevjerojatne zdravstvene blagodati, pomoći vam da smanjite tjelesnu masu te da za prakticiranje istog nisu potrebna dugačka razdoblja tijekom kojih je zabranjeno jesti određenu vrstu ili količinu hrane, kao ni rasporedi obroka, dodaci prehrani ili planovi prehrane? Biste li bili zainteresirani?

Na sljedećim ću stranicama s vama podijeliti otkriće koje je rezultat bezbroj sati istraživanja, godina školovanja, karijere u industriji sportskih dodataka prehrani i opsjednutosti nutricionizmom.

Predstavit ću razloge zbog kojih mislim da je većina stilova prehrane nepotrebna, da se njima nameće previše ograničenja i da su u konačnici suviše kompliciran da bi poslužili kao dugotrajno rješenje. I što je još važnije, opisat ću način koji smatram jedinim i najboljim za jesti i živjeti; način života koji će vam pomoći s gubitkom viška kilograma i s održavanjem nove tjelesne mase, bez ikakvih složenih planova, pravila i računica, što je karakteristično za većinu stilova prehrane. U konačnici, nemojte ovo smatrati samo stilom prehrane. To je stil prehrane koji može prerasti u stil života.

Moram vas unaprijed upozoriti da su mnoge od ovih zamisli „kontroverzne“ jer nisu u skladu s trenutnim trendovima u nutricionizmu. Kada sam počeo raditi na ovom projektu obećao sam si da neću jednostavno „prihvatiti“ aktualna pravila nutricionizma samo zato jer su to pravila koja su trenutno u trendu. U konačnici, kao što su naši bodybuilderi iz primjera dokazali, mnogi su različiti stilovi prehrane doveli do razvoja zapanjujućih tjelesnih građa.

Dakle, iako se zamisli iz ove knjige mogu sada činiti radikalnima, za dvadeset bi godina jednostavno mogle biti nova pravila u području nutricionizma!

Ako ovu knjigu budete čitali otvorenog uma, uvjeren sam da ćete shvatiti da sve što sam napisao ima smisla. Možda je drugačije od onog što većina ljudi govori, ali iza toga stoji velika količina znanstvenih istraživanja i može vam promijeniti život.

Nadam se da ćete uživati u knjizi.

Autor,
Brad Pilon

Kako je sve počelo

Kako je sve počelo

Prije točno godinu dana napustio sam karijeru u industriji sportskih dodataka prehrani. Nemojte me krivo shvatiti, rastanak nije doveo do loših odnosa i nisam htio u potpunosti napustiti tu industriju, već sam samo želio novi početak.

Kako bih vam sve u potpunosti objasnio, morat ćemo se vratiti unatrag dvadesetak godina.

Oduvijek sam bio opsjednut vježbanjem, zdravljem i nutricionizmom. Prije no što sam navršio deset godina, posjedovao sam vrlo impresivnu zbirku časopisa *Muscle & Fitness*, a nekoliko godina kasnije i *Men's Health*. Sjećam se da sam čitao o bodybuilderima kao što su Lee Haney, Arnold Schwarzenegger i Lou Ferrigno te sve članke o stilovima prehrane i programima vježbanja. Upravo su ti članci pobudili moj interes za proučavanje znanstvenih činjenica koje objašnjavaju gubitak masnog tkiva u tijelu.

Sa šesnaest godina pretplatio sam se na časopis *American Journal of Clinical Nutrition (Američki časopis o kliničkoj prehrani)*. Čitao bih sve znanstvene radove koji su imali veze sa stilovima prehrane i gubitkom masnog tkiva u tijelu. Trebao bi mi otprilike jedan cijeli dan da pročitam članak jer sam morao provjeriti značenje gotovo svake riječi u medicinskom rječniku.

Sa sedamnaest godina počeo sam raditi u obližnjoj prodavaonici s dodacima prehrani. To je bio moj prvi službeni korak u industriji zdravlja i prehrane te se od tada nikada nisam predomislio. Kada sam počeo studirati nutricionizam na sveučilištu, imao sam samo dva cilja – naučiti sve što sam mogao o nutricionizmu i ljudskom metabolizmu te diplomirati s počastima. I u proljeće 2000. godine postigao sam oba cilja.

Neposredno nakon što sam diplomirao, uz malo sreće i dobrog tempiranja, dobio sam posao istraživačkog analitičara u jednoj od vodećih svjetskih tvrtki koja se bavi dodacima prehrani.

Tako je bilo sve do lipnja 2006. Proveo sam posljednjih šest godina života radeći u jednoj od najtajnovitijih industrija na svijetu. Za to vrijeme povjerena mi je zaštita nekih od najpovjerljivijih informacija u cijeloj industriji. Bio sam odgovorna osoba za unutarnje poslovanje Odjela za istraživanje i razvoj. Nažalost, to je bio dio problema.

Dio mog posla bio je pisanje recenzija o bodybuilding i fitness časopisima. Stalno sam čitao o „najnovijoj i najboljoj" metodi prehrane. Nakon što sam proveo niz godina čitajući časopis za časopisom, nisam više znao u što vjerovati. Činilo se da svaki mjesec najnovije metode prehrane pobijaju one iz časopisa od prošlog mjeseca. Dobio sam dojam da se industrija o gubljenju tjelesne mase sastoji isključivo od pogrešnih informacija.

Kada je riječ o znanosti mršavljenja, svaki je „nutricionistički guru" i „stručni trener" imao svoje teorije o tome što funkcionira, a što ne. Nakon što sam proveo godine čitajući i recenzirajući sve te programe prehrane, počeo sam im i sam vjerovati!

Unatoč formalnom obrazovanju koje sam stekao u tom području, teorije poput prehrane s visokim količinama bjelančevina i rotiranjem unosa ugljikohidrata s vremenom su mi se počele činiti smislenima, iako nikada nisam naišao na uvjerljiva istraživanja koja bi podržala takve teorije.

Naposljetku, to su bile samo teorije. Neke su se temeljile na činjenicama, a neke na čistim glupostima. Često su jedne pobijale druge, dok su neke prkosile osnovnim zakonima termodinamike i znanosti. Međutim, primijetio sam jednu zanimljivu stvar u toj industriji; ako se neka zamisao dovoljno puta objavi i ako ju dovoljno ljudi prihvati, ona će postati istinita, bez obzira na to koliko netočna ona zaista bila.

Tko god je rekao „možeš reći istu laž tisuću puta, ali ona nikada neće postati istina" očito nikada nije imao posla s prehrambenom industrijom!

Ono što želim reći jest da sam se pridružio industriji sportskih dodataka prehrani iz istog razloga zbog kojeg sam je na kraju i napustio. Želio sam otkriti prava pravila za smanjivanje tjelesne mase i kako bismo uistinu trebali jesti.

Na kraju sam napustio svoju karijeru u industriji kako bih mogao napisati ovu knjigu.

Uvod

Uvod

Dok sam se bavio istraživanjem za ovu knjigu, postavio sam si cilj da otkrijem istinite znanstvene činjenice o gubitku tjelesne mase i stilovima prehrane.

Da razjasnim, ne govorim o znanstvenim činjenicama kojima se proizvođači hrane i marketinški stručnjaci svakodnevno razbacuju. Vjerujem da su vam poznate činjenice poput „*jedite ovo, a ne ono*“ ili „*nedavno istraživanje je pokazalo*…“. Želio sam doznati onu pravu, jedinu istinu. Htio sam saznati nepobitnu istinu o nutricionizmu.

Moj prvi korak u ovom pothvatu bio je pročitati svaku knjigu o nutricionizmu i stilovima prehrane koja mi je došla pod ruku. U samo godinu dana pročitao sam, i to po nekoliko puta, sljedeće knjige:

> *Dijetna revolucija dr. Atkinsa, Moć bjelančevina, Tijelo za život, Zona dijeta, South Beach dijeta, Zašto se Francuskinje ne debljaju, Ratnička dijeta, Metabolička dijeta, Volumetrijska dijeta, Mit o pretilosti, Što jesti, Dilema svejeda, Prava hrana, Politika hrane,* kao i razne „knjige iz podzemlja“ o stilovima prehrane i nutricionizmu kao što je *Opus tijela* Dana Duchainea.

Povrh toga, proučio sam na stotine znanstvenih radova (bez pretjerivanja) te više puta pročitao svoje udžbenike o nutricionizmu. Čak sam išao do te mjere da sam upisao diplomski studij Biologije čovjeka i nutraceutskih znanosti i mogu reći da je bila potrebna gotovo nezdrava želja za otkrivanjem istine koja bi me potaknula da se ponovno upišem na fakultet nakon sedmogodišnje stanke, uz trudnu suprugu i iznimno zahtjevan posao koji sam obavljao kao savjetnik!

Što sam otkrio svojim istraživanjem? Mogu reći da postoje samo dvije apsolutne istine kada je u pitanju nutricionizam i gubitak tjelesne mase.

1) **Dugotrajno ograničavanje kalorija jedina je dokazana nutricionistička metoda za gubitak tjelesne mase**

i

2) **Čovjek (nutricionistički gledano) može biti samo u jednom od sljedećih stanja: u stanju sitosti ili u stanju posta.**

To je to. Prema mome mišljenju to su jedine dvije neosporne činjenice. O svemu se ostalom može raspravljati. To je problem s nutricionizmom u današnje vrijeme – čini se toliko kompliciranim i zbunjujućim da više nitko ne zna u što vjerovati.

Čini se da nova znanstvena istraživanja ne postižu ništa osim što još više pridonose nejasnim teorijama i savjetima o prehrani koji već postoje, a razlog je potpuno jasan – istraživanja o

nutricionizmu i hrani više se ne provode da bi se poboljšalo naše zdravlje i blagostanje. Provode se kao dio metode koja se koristi kako bi nas nagovorili da odaberemo jedan, a ne neki drugi proizvod, a to se sve temelji na pretpostavci da smo „neprestani potrošači".

Koliko ja to vidim, većina se trenutnih istraživanja o hrani i nutricionizmu provode u svrhu marketinga. To je zato jer novac kojim se financiraju istraživanja o prehrani uglavnom dolazi od tvrtki koje proizvode hranu ili dodatke prehrani. Te „donacije" ili bespovratna sredstva dolaze s očekivanjem da će istraživanje rezultirati tvrdnjom o zdravlju ili nekakvom drugačijom marketinškom tvrdnjom koju bi tvrtka onda mogla iskoristiti za oglašavanje svojih proizvoda. Čini se da tvrdnje o zdravlju koje se tiču hrane i dodataka prehrani mogu biti nevjerojatno unosne, a politika koja se nalazi u pozadini toga je neosporna.

Upravo sam u knjizi renomirane autorice i znanstvenice Marion Nestle *Što jesti* pročitao sljedeći citat: *„Pravi razlog za tvrdnje o zdravlju dobro je poznat: tvrdnje vezane uz zdravlje prodaju prehrambene proizvode"*[1] i s njim se u potpunosti slažem. Sve se svodi na to da istraživanja iznose tvrdnje o zdravlju, a upravo one prodaju proizvode, bilo da se radi o nekakvoj novoj „funkcionalnoj" hrani ili najnovijem stilu prehrane, ako istraživanje kaže da djeluje, zajamčeno je da će se više prodavati.

Nedugo nakon što sam započeo svoje istraživanje, shvatio sam da su istraživanja o gubitku tjelesne mase postala toliko isprepletena politikom da su se pretvorila u najironičniji oksimoron na svijetu. Naposljetku, istraživanja su pokušavala objasniti potpuno naopaku zamisao; „*Što bismo trebali jesti da izgubimo tjelesnu masu?!*".

Kada sam shvatio da se gotovo sva istraživanja o prehrani provode pod tom potpuno naopakom paradigmom, znao sam da mi preostaje samo jedan izbor. Ako želim izbjeći sve pristrane i skrivene utjecaje na današnja istraživanja o prehrani, moram se vratiti na sam početak. Moram detaljno proučiti što se točno događa ljudima u potpunoj odsutnosti hrane.

Stanje posta

Stanje posta

Definicija posta prilično je jednostavna. Pročitao sam brojne definicije iz rječnika i opise posta na internetu te odlučio da je najbolja definicija sljedeća: „***Čin dobrovoljnog uzdržavanja od neke ili sve hrane i u nekim slučajevima pića, tijekom određenog vremenskog razdoblja***." Ključna riječ u ovoj definiciji je „dobrovoljno" jer je upravo to ono što razlikuje post od

gladovanja. Osim te jedne male razlike, krajnji je rezultat isti – svrhovito uzdržavanje od unošenja kalorija tijekom određenog vremenskog razdoblja.

Postoji nekoliko očitih prednosti kod proučavanja posta kao načina za otkrivanje istine o prehrani i gubitku tjelesne mase. Najvažnija je ta što ljudi koji rade isključivo za svoje interese nemaju razloga za proučavanje posta.

Post automatski isključuje konzumaciju bilo kakve hrane, zdravih dodataka prehrani ili funkcionalne hrane. Na veliku žalost prehrambenih tvrtki, post se ne može pretvoriti u tabletu i prodati, a kao što smo već raspravljali, većina aktualnih istraživanja o prehrani provodi se samo da bi se na tržište stavili novi proizvodi. S obzirom na to da ništa ne konzumirate dok postite, velike prehrambene tvrtke ne daju puno pozornosti istraživanjima o postu, pa tako ni financijska sredstva za njihovo provođenje (Uostalom, zašto bi prehrambene tvrtke trošile novce da dokažu kako postoji korist od toga što jedete *manje* njihovih proizvoda?).
Još jedna prednost kod proučavanja posta jest što već postoji vrlo puno provedenih istraživanja o njemu, a nova se objavljuju svakodnevno. Post postoji, koliko je meni poznato, od početka zabilježene povijesti. Gotovo sve velike religije prakticiraju neku vrstu posta, a puno je puta tijekom povijesti zabilježeno da ljudi poste iz raznih razloga.

Zapravo, Dr. Micheal Eades, autor knjige *Moć bjelančevina*, na svom blogu predlaže da bi post čak mogao biti i način na koji su jeli naši preci iz paleolitika[2]:

> *„Kada sam razmišljao o tom procesu, došao sam do zaključka da je stil prehrane s povremenim postom vjerojatno bio način na koji je čovjek iz paleolitika jeo. Mi, suvremeni ljudi, navikli smo jest tri cjelovita dnevna obroka. Životinje u divljini, a posebice mesojedi, ne jedu tri puta dnevno. Jedu kada nešto ulove. Pretpostavljam da je čovjek iz paleolitika činio isto.“*

Kao što je Dr. Eades istaknuo, čini se sasvim logičnim da su naši preci povremeno gladovali, ovisno o tome koliko im je hrana bila dostupna. Također postoje dokazi koji govore u prilog činjenici da mnoge različite kulture diljem svijeta i danas prakticiraju post. Mnogi ljudi poste iz religijskih ili duhovnih razloga, a mnogi post koriste i kao metodu kontrole tjelesne mase. No, u Sjevernoj Americi, uz iznimku posta iz religijskih razloga, praksa posta gotovo je u potpunosti nestala.

Nestanak stanja posta

Nestanak stanja posta

Na početku knjige izjavio sam da ljudsko biće, u smislu prehrane, može biti u stanju sitosti ili u stanju posta. Time sam želio reći da možemo biti u procesu hranjenja i pohranjivanja kalorija koje dobivamo iz hrane ili u procesu sagorijevanja tih istih kalorija prilikom trošenja pohranjene energije. Ta se energija pohranjuje u obliku masnog tkiva i glikogena (oblik šećera i ugljikohidrata pri njihovom pohranjivanju u tijelu).

Naša tijela funkcioniraju tako što konzumiraju hranu kada je dostupna i koriste pohranjene kalorije kada hrane više nema. To su jedine dvije mogućnosti. Možemo ih smatrati yinom i yangom nutricionizma i zdravlja.

1. Jedemo i pohranjujemo kalorije.
2. Ne jedemo i sagorijevamo kalorije.

Post je najjednostavnija metoda koju tijelo koristi kako bi održalo kalorijsku ravnotežu. Treba pohraniti malo energije kada jedemo i malo potrošiti kada ne jedemo. Problem je u tome što su novija istraživanja pokazala da u stanju sitosti provodimo čak do 20 sati dnevno[3]. Neprestano jedemo i pohranjujemo hranu te si nikada ne dajemo priliku da to i potrošimo.

Dakle, yin i yang stanja sitosti i stanja posta zamijenjeni su stalnim stanjem sitosti, a mi bespomoćno pokušavamo dokučiti kako nastaviti jesti i na neki način istovremeno smanjiti tjelesnu masu. To je prilično zastrašujuć scenarij kada razmislite o činjenici da su naša tijela stvorena da pohranjuju energiju u obliku masnog tkiva.

Upravo zato što bismo trebali biti u neprestanom ciklusu stanja sitosti i posta, naša su tijela stvorena da pohranjujemo energiju u obliku masnog tkiva kada pojedemo veću količinu hrane da bismo ju mogli potrošiti kasnije kada ne budemo imali prilike jesti.

Zamislite lovca koji je ulovio i pojeo životinju pa nakon toga pronašao nekakve bobice. Kada pojede svo meso i pobere sve bobice, lovac nema drugog izbora nego nastaviti tragati za hranom. Naša su tijela stvorena da funkcioniraju na taj način.

Pa ako su naša tijela stvorena da se nahranimo i onda postimo, zašto više nitko ne posti?

Smatram da je to zato jer je cijeli koncept posta u svrhu smanjivanja tjelesne mase i postizanja dobrog zdravlja došao na loš glas u zapadnjačkom društvu jer je usmjeren izravno protiv jednog od osnovnih načela poslovanja – ponude i potražnje. Prehrambenoj je industriji zamisao o tome da ljudi jedu manje pogubna za poslovanje!

Razmislite o sljedećem; svaki dan u SAD-u prehrambena industrija proizvede dovoljno hrane da opskrbi svaku osobu s gotovo 4 000 kalorija[4]. Povrh toga, 10 milijardi dolara godišnje ulaže se u oglašavanje te hrane[5]. Bila bi to ogromna financijska katastrofa za mnoge prehrambene tvrtke kada bi odjednom svi u SAD-u odlučili ne jesti po jedan dan u tjednu.

Upravo je zato prehrambena industrija voljna ponuditi mnoge teorije o tome kako smanjiti tjelesnu masu, dokle god to znači da ćemo nastaviti kupovati i konzumirati prehrambene proizvode.

Razmislite o svim stilovima prehrane koje poznajete, a da su vam bili ponuđeni. Svi se pozivaju na neprestani unos hrane. *Jedite šest malih obroka dnevno. Jedite visoke količine bjelančevina. Jedite doručak (To je najvažniji obrok u danu). Jedite žitarice. Jedite hranu bogatu kalcijem. Jedite cjelovitu pšenicu. Uzimajte pilule za mršavljenje*. Štogod preporučili, sve se uvijek vrti oko neprestanog konzumiranja hrane i dodataka prehrani.

U konačnici, tvrtke imaju svoje viđenje o nama – mi smo potrošači (a ne ljudi). Ako potražite riječ „potrošač“ u rječniku sinonima pronaći ćete riječ „kupac“. Koliko puta ste čuli predstavnika tvrtke da izgovara nešto poput, „Mi cijenimo naše kupce“? Naravno da cijene, mi kupujemo (i konzumiramo) njihove proizvode! Bez nas ne bi ostvarili dobitak i u konačnici, njihova tvrtka ne bi ni postojala.

U vremenu u kojem toliko puno ljudi pokušava i ne uspijeva smanjiti tjelesnu masu, ne čini se baš vjerojatno da ćemo rješenje pronaći jednostavnim ograničavanjem unosa kalorija. Zapravo, u svojoj prilično kontroverznoj knjizi *Mit o pretilosti* Paul Campos izjavio je da ograničavanje kalorija ne smatra učinkovitom metodom smanjivanja tjelesne mase. Uistinu, g. Campos je čak izjavio kako je zamisao o tome da bi „Ljudi mogli smanjiti tjelesnu masu kada bi stvarno htjeli“ zapravo laž[6].

Nemam baš namjeru ići tako daleko kao g. Campos, ali sam voljan izjaviti da je svaki današnji popularni stil prehrane osuđen na propast ukoliko se primjenjuje dugoročno. Prema mom mišljenju, bez obzira koliko jaku volju imali, ona će s vremenom oslabiti pod utjecajem marketinga, oglašavanja i privlačnosti ukusne hrane. Konačno, nitko se uistinu ne želi držati stila prehrane kojim se ograničava unos kalorija, svi mi samo želimo izgledati bolje i smanjiti količinu masnog tkiva u tijelu (takav je stil prehrane očito samo sredstvo kojim se to može postići).

Sve ovo nameće sljedeće pitanje: „Je li nas prehrambena industrija toliko zaslijepila da smo previdjeli najjednostavniji način za smanjivanje unosa kalorija pa tako i tjelesne mase, odnosno kratka razdoblja posta, a sve s ciljem da nastavimo konzumirati njihove proizvode?“ Čini se da je odgovor jedno veliko „Da!“.

<u>Zaboravite sve što ste ikada pročitali o postu</u>

Zaboravite sve što ste ikada pročitali o postu

Količina pogrešnih informacija usmjerena protiv posta koja se može naći na internetu je nevjerojatna, i to bez obzira na činjenicu da su naša tijela stvorena kako bi postila i na to što svaka velika religija i kultura prakticira neki oblik posta u svojim ritualima.

Na internetu ima jako puno informacija o postu i ograničavanju unosa kalorija te bi ih se trebalo čitati s velikim oprezom. Sulude izjave poput „*post lišava tijelo potrebnih hranjivih tvari i ne čini ništa kako bi vam pomogao promijeniti prehrambene navike*“ i „*tjelesna masa izgubljena tijekom posta u potpunosti je od mišića*“ mogu se lako pronaći na internetu. Obično nakon takvih izjava slijedi još puno istih, starih izreka o prehrani, poput „*jedite više malih obroka tijekom dana*“, jedite „*hranu bogatu bjelančevinama svaka 2-3 sata*“, „*izbjegavajte mlijeko i mliječne proizvode*“ i sve ostale popularne zamisli o ograničavanju kalorija.

Ono što je nevjerojatno jest da gotovo sva znanstvena istraživanja koja sam pregledao pružaju dokaze koji upućuju na upravo suprotno od tih pogrešnih informacija koje se mogu pronaći na internetu.

Pronašao sam uvjerljive dokaze koji podupiru korištenje kratkotrajnog posta (u trajanju od 24 sata) kao učinkovitu metodu za smanjivanje tjelesne mase. Tu su bila uključena istraživanja o utjecaju posta na metabolizam i mišićnu masu te učinak posta na vježbanje i sportske rezultate. Ono što je učinilo stvari još zanimljivijima jest da ovakva vrsta posta ne pomaže samo pri smanjivanju tjelesne mase, već znatno poboljšava mnoge pokazatelje zdravlja.

Post i metabolizam

Post i metabolizam

Dok sam proučavao post pronašao sam neke vrlo zanimljive informacije, a većina njih se izravno suprotstavlja mnogim suvremenim „pravilima prehrane“. Činjenica koja najviše iznenađuje je da prakticiranje posta na kratko vremensko razdoblje ne usporava metabolizam.

Ako ste pročitali bilo što o nekima od popularnih stilova prehrane današnjice, onda znate da se svi temelje na toj zamisli. Priča koju vam pričaju obično ide ovako; ako previše smanjite unos kalorija, onda ćete prestati sagorijevati masno tkivo i tijelo će preći u „stanje gladovanja“ pa će se metabolizam usporiti do točke zaustavljanja. To je „evanđelje“ nutricionizma. No, ispostavlja se da to zapravo nije istina.

Dopustite mi da objasnim.

Naš se metabolizam temelji na trošku energije potrebne za održavanje stanica u našim tijelima na životu. Primjerice, recimo da vas stavimo u najmoderniji laboratorij i izmjerimo količinu kalorija koju potrošite u jednom danu dok sjedite na kauču i ništa ne radite. Recimo da se radi o 2 000 kalorija. To se može nazvati bazalnim metabolizmom; 2 000 kalorija bila bi količina kalorija koju trebate pojesti da biste nadomjestili energiju koju potrošite samim time što postojite.

No, recimo da ste se tog dana kretali, možda ste hodali 30 minuta, pri čemu biste mogli potrošiti dodatnih 100 kalorija, to bi povećalo ukupnu brojku potrošenih kalorija na 2 100.

Vaš bazalni metabolizam uvijek zahtjeva 2 000 kalorija, a zatim se bilo kakva dodatna energija koju potrošite kada se krećete (poput vježbanja) pridoda toj brojki.

Dakle, prema ovom primjeru potrošit ćete 2 000 kalorija u danu bez obzira na to što činili. Zašto nam se onda govori da će nam se metabolizam usporiti ako ne jedemo neko duže vremensko razdoblje? Odgovor se krije u zanimljivom metaboličkom procesu koji se javlja prilikom jela zvan „*termički učinak hrane*“ i nekim domišljatim tumačenjima tog prilično jednostavnog procesa.

Probavljanje obroka može malo ubrzati metabolizam, a to se naziva „*termičkim učinkom hrane*“. To ubrzanje metabolizma rezultat je dodatne energije koju tijelo koristi da bi probavilo i preradilo hranu. Potrebna je energija da bi se hrana razgradila, probavila, apsorbirala i pohranila nakon što ju pojedete. Taj „trošak energije“ izmjeren je u laboratorijskom okruženju te čini osnovu popularnih stilova prehrane koji naglašavaju metabolički trošak jedne hranjive tvari u usporedbi s drugom.

Primjerice, potrebno je više kalorija kako bi se probavile bjelančevine nego ugljikohidrati ili masti pa se u nekim stilovima prehrane preporučuje zamjenjivanje jednog dijela ugljikohidrata i masti s bjelančevina te se pretpostavlja da će se tako potrošiti više kalorija. Iako je to znanstveno točno, količina dodatnih kalorija koju ćete potrošiti usvajanjem te prehrambene navike veoma je mala i neće dovesti ni do kakve razlike što se tiče sveukupnih potrošenih kalorija u danu.

Primjerice, zamisao o konzumiranju dodatnih 25 grama bjelančevina kako biste mogli potrošiti više kalorija je smiješna. Ako biste pojeli dodatnih 25 grama bjelančevina dodali biste 100 kalorija samo da biste u tom danu potrošili dodatnih 10 kalorija! Logičniji pristup bio bi da jednostavno ne pojedete tih 100 kalorija.

Gotovo sve kalorije koje potrošite svaki dan rezultat su bazalnog metabolizma, tj. kalorijske potrošnje tijela u mirovanju (kalorije koje su potrebne da biste se održali na životu). Osim toga, jedini način kojim značajno možete povećati količinu kalorija koju potrošite u danu je da vježbate.

Istraživanja o metabolizmu i unosu kalorija nevjerojatno su uvjerljiva. Uspio sam pronaći sljedeća istraživanja kojima se mjerila brzina metabolizma kod osoba koje su postile ili su prakticirale stil prehrane s vrlo niskim unosom kalorija:

U jednom su istraživanju istraživači utvrdili da se brzina metabolizma nije promijenila kod osoba koje su u stanju posta provele 3 dana[7]. To su 72 sata bez hrane. Toliko o tome da se treba jesti svaka tri sata!

U drugom istraživanju koje je provela druga skupina istraživača, osobe koje su postile svaki drugi dan u razdoblju od 22 dana također nisu doživjele usporavanje bazalnog metabolizma[8].

Pored toga, osobe koje su primjenjivale stil prehrane s niskim unosom kalorija i program tjelovježbe koji uključuje vježbe snage (tj. dizanje utega) nisu doživjele usporavanje bazalnog metabolizma, a te su osobe jele samo 800 kalorija dnevno punih 12 tjedana!

U još jednom zanimljivom istraživanju, žene koje su 3 dana jele polovicu količine hrane koju inače jedu nisu doživjele nikakvu promjenu u brzini metabolizma[9].

Dodatna su istraživanja pokazala da nije bilo promjene u brzini bazalnog metabolizma kod osoba koje su preskakale doručak, kao ni kod osoba koje su jele dva obroka dnevno u usporedbi s osobama koje su jele 7 obroka dnevno[10,11.]

Zaključak jest da hrana gotovo nema nikakve veze s metabolizmom. Zapravo, metabolizam je više povezan s tjelesnom masom. Kako se tjelesna masa povećava ili smanjuje, tako se i metabolizam ubrzava ili usporava. Jedina druga stvar koja može utjecati na brzinu metabolizma (kratkoročno i dugoročno) je vježbanje i smanjivanje tjelesne mase. Čak i u potpunoj odsutnosti hrane u trajanju od 3 dana, brzina metabolizma ostaje nepromijenjena.

Ono što uznemiruje jest to što se čini da svaki fiziolog, liječnik i doktor znanosti s kojim sam razgovarao razumije to, ali mnogi su osobni treneri, nutricionistički gurui i prodavači dodataka prehrani potpuno nesvjesni te znanstvene činjenice. To uistinu dokazuje koliko učinkovit može biti marketing koji je zastupljen na internetu i u časopisima o fitnessu i prehrani.

To me je navelo na razmišljanje; ako unos hrane nema utjecaja na brzinu metabolizma, za koje sam još mitove povjerovao da su „*znanstvene činjenice*“, a zapravo to nisu?

Odlučio sam proučiti znanstvene činjenice koje objašnjavaju na koji način funkcioniraju mnogi popularni stilovi prehrane današnjice. Nisam naišao na razlike među njima što se tiče njihove učinkovitosti tijekom dužeg vremenskog razdoblja.

Ljudi koji su odabrali stilove prehrane s visokim udjelom bjelančevina, a niskim udjelom ugljikohidrata (slično Atkinsovoj dijeti ili Zoni) malo su brže gubili tjelesnu masu, barem kratkoročno. No, kada su se istraživanja odužila na 6 mjeseci i do godinu dana, te su se razlike obično izjednačile[12].

Pronašao sam samo jednu stvar koja je vrijedila za sve te stilove prehrane. To je da uspjeh svakog od njih ovisi o tome koliko se strogo ljudi pridržavaju pravila određenih tim stilom prehrane i

koliko dugo se mogu držati ograničavanja kalorija. Drugim riječima, uspjeh nekog stila prehrane može se mjeriti time koliko se uspješno ljudi mogu držati moje prve nutricionističke „istine“ - „**dugotrajno ograničavanje kalorija jedina je dokazana *nutricionistička* metoda za gubitak tjelesne mase**“.

Dakle, iz toga što smo vidjeli postoji velika količina znanstvenih činjenica koje podržavaju korištenje kratkotrajnog posta kao odličnog načina za ograničavanje kalorijskog unosa te se čini kao jednostavan i učinkovit način za smanjivanje količine masnog tkiva u tijelu. Također smo utvrdili da nema negativan učinak na metabolizam i time smo za sada zadovoljni. Ali, kakav učinak ima na mišiće?

Post i vježbanje

Post i vježbanje

Mišićne stanice imaju sposobnost pohranjivanja šećera u obliku koji nazivamo „glikogen“. Zanimljiva stvar kod tog procesa jest da mišići nemaju sposobnost vraćanja tog pohranjenog šećera nazad u krvotok. Npr. glikogen koji je pohranjen u mišićima desne noge može iskoristiti samo desna noga. Ne može se „donirati“ jetri ili mozgu, ili bilo kojem drugom dijelu tijela. To temeljno pravilo vrijedi za sve mišiće.

Tijekom posta sustavi tijela računaju na masno tkivo i na šećer koji je pohranjen u jetri da im posluže kao izvori energije. Mišići i dalje imaju vlastiti šećer koji im je potreban za vježbanje. Šećer u mišićima brzo se troši kod izvođenja vježbi visokog intenziteta kao što su dizanje utega ili sprintanje.

Istraživanje provedeno 1987. godine utvrdilo je da je post od tri i pol dana uzrokovao minimalna pogoršanja mjerljivih rezultata fizičkih sposobnosti kao što su izometrička snaga, anaerobni kapacitet ili aerobna izdržljivost[13]. Drugim riječima, utvrdili su da trodnevni post nije imao negativnih učinaka na snagu mišićne kontrakcije, na sposobnost izvršavanja kratkotrajnih vježbi visokog intenziteta ni na sposobnost vježbanja umjerenim intenzitetom tijekom dužeg vremenskog razdoblja.

To znači da post ne utječe negativno na kratkotrajne anaerobne vježbe kao što su dizanje utega niti ima negativan utjecaj na tipičan aerobni trening.

Jedno drugo istraživanje provedeno 1988. utvrdilo je da nema razlike između vojnika koji su vježbali do iscrpljenosti neposredno nakon obroka i onih koji su to činili nakon posta u trajanju od tri i pol dana[14].

Iz ovih istraživanja možemo zaključiti da biste trebali biti u stanju vježbati dok postite i ne primijetiti nikakve promjene u sportskoj učinkovitosti.

Jedina situacija u kojoj smatram da bi moglo biti negativnih učinaka zbog posta je kod bavljenja sportovima izdržljivosti poput trčanja maratona ili triatlona u stilu Ironman, gdje bez prestanka vježbate puno duže od jednog sata[15,16]. Takve vrste natjecanja zahtijevaju od natjecatelja da jedu tijekom samog natjecanja kako im se sportska učinkovitost ne bi narušila.

No, trebalo bi napomenuti da se „negativan učinak" koji se pojavljuje kod prakticiranja posta prije dugotrajnih aktivnosti za koje je potrebna izdržljivost odnosi samo na vrijeme koje je potrebno da sportaš dosegne stanje iscrpljenosti. Tako da je količina vremena tijekom kojeg sportaš može vježbati u stanju posta prije nego dosegne stanje iscrpljenosti kraća nego količina vremena potrebna da sit sportaš dosegne stanje iscrpljenosti.

I dok je količina vremena potrebna da sportaš u stanju posta postane iscrpljen skraćena, post zapravo ima pozitivne učinke na sagorijevanje masnog tkiva kod tih sportaša.

Sportaši koji izvode dugotrajnu aktivnost koja zahtijeva izdržljivost u stanju posta zapravo sagorijevaju više masnog tkiva nego sportaši koji su siti. Tako da bi, ovisno o vašim ciljevima, post prije vježbi izdržljivosti zapravo mogao biti koristan.

Vjerujem da je potreba za jelom prije vježbanja ili naporne aktivnosti više psihološka nego fizička potreba. Ori Hofmekler, autor knjige *Ratnička dijeta*, istaknuo je da „grabežljivci u divljini love samo kada su gladni"[17].

Fitness stručnjak Matthew Furey (koji često prakticira kratkotrajni post) spomenuo je da je kao student i tadašnji prvak u hrvanju imao osjećaj da je bio brži, oprezniji i da je imao bolje reflekse kada je jeo manje prije natjecanja[18].

Dakle, s psihološkog stajališta, možda čak ima i prednosti kod vježbanja ili natjecanja u stanju posta.

Post i mišićna masa

Post i mišićna masa

Još jedan veliki mit o ograničavanju kalorija i postu jest da ćete izgubiti mišićnu masu dok se pridržavate određenog stila prehrane. To je u potpunosti neistinito. Ne samo da smanjivanje

unosa kalorija ne uzrokuje usporavanje metabolizma, već ni ne rezultira gubitkom teško zarađenih mišića.

Postoji jedno strogo pravilo koje ide ukorak s tom izjavom: morate se baviti nekom vrstom vježbi snage, kao što je dizanje utega.

Dok dugotrajno kalorijsko ograničavanje bez vježbi snage može prouzročiti gubitak mišićne mase (kao što je slučaj kod pacijenata u bolnici koji moraju prakticirati stil prehrane s niskom unosom kalorija i ležati u krevetu), kombinacija kalorijskog ograničavanja i vježbi snage pokazala se vrlo učinkovitom za očuvanje mišićne mase.

Istraživanjem provedenim na muškarcima i ženama koji su primjenjivali stil prehrane s vrlo niskim unosom kalorija utvrđeno je da su u 12 tjedana tijekom kojih su se pridržavali tog stila prehrane unosili samo 800 kalorija i 80 grama bjelančevina po danu te uspjeli održati mišićnu masu sve dok su vježbali s utezima 3 puta tjedno[19].

U jednom drugom istraživanju, muškarci su ograničili unos kalorija tako što su dnevno unosili 1000 kalorija manje od svog uobičajenog unosa punih 16 tjedana. Sudjelovali su u programu treninga s utezima tri puta tjedno i uspjeli su izgubiti 9 kg masnog tkiva u tijelu, a održati količinu mišićne mase![20]

U daljnjem istraživanju, žene su se pridržavale stila prehrane sa smanjenim unosom kalorija 16 tjedana te su također uspjele održati mišićnu masu vježbajući s utezima tri puta tjedno[21].

Sve dok koristite mišiće, oni neće propasti tijekom kratkog razdoblja ograničavanja kalorija. Iz vlastitog iskustva koje sam stekao dok sam radio u industriji sportskih dodataka prehrani mogu reći da bodybuilderi i fitness sportaši koji ne koriste steroide stalno prolaze kroz razdoblja u kojima primjenjuju stilove prehrane s vrlo niskim unosom kalorija u trajanju od 16 do 20 tjedana i pritom održavaju svu mišićnu masu dok se pripremaju za natjecanja u bodybuildingu.

Još jedan mit o ograničavanju kalorija je razbijen! Toliko o „stanju gladovanja“ ili o konzumiranju 50 grama bjelančevina svakih nekoliko sati - ono što je ključno za mišićnu masu su vježbe snage; a stil prehrane gotovo da nema ništa s tim!

A s obzirom da stil prehrane nema gotovo nikakve veze s mišićnom masom, tada kratkotrajna razdoblja posta definitivno neće naštetiti mišićima (sve dok nastavite redovno vježbati).

Napomena: Kao dodatnu literaturu, toplo preporučujem www.turbulencetraining.com Craiga Ballanytnea i www.6minutecircuits.com Johna Barbana kao odlične izvore programa vježbi i informacija o treningu snage.

Post i glad

Post i glad

Teško je objasniti osjećaj prave gladi, siguran sam da ga mnogi od nas zapravo nikada nisu iskusili. Osjetili smo nešto što je slično odvikavanju zato što nismo bili u mogućnosti jesti onda kada bismo htjeli, ali pravu su glad upoznali samo oni koji su tjednima bili bez hrane i koji nisu bili sigurni kada ili kako će doći do idućeg obroka.

Razmislite o sljedećem; većina ljudi postane osjetno gladna ako prođe više od dva do tri sata bez jela, ali metabolički gledano, oni su još uvijek u stanju sitosti. To znači da njihova tijela još uvijek prerađuju hranu koju su pojeli tijekom zadnjeg obroka. Drugim riječima, u njihovom sustavu još uvijek ima neiskorištene energije od prošlog obroka, a oni se već osjećaju dovoljno gladnima da bi mogli ponovno jesti. Kako je to moguće?

Najvjerojatnije je to naučena reakcija na kombinaciju metaboličkih, društvenih i okolišnih signala koji nas potiču da jedemo. Sjećate se kako sam spomenuo da prehrambena industrija potroši 10 milijardi dolara godišnje na oglašavanje hrane? Pa, izgleda da je to oglašavanje veoma učinkovito.

Prema Brianu Wansinku, autoru knjige *Bezumni obroci*, svaki dan donosimo čak 200 odluka vezanih uz hranu i izloženi smo bezbrojnim oglasima o hrani[22]. Prema mome mišljenju, to je razlog zašto gotovo nijedan stil prehrane koji preporuča ograničavanje kalorija ne uspijeva. Gotovo je nemoguće da uvijek svjesno kontroliramo što jedemo i koliko jedemo. Jednostavno postoji previše čimbenika iz okoline koji djeluju protiv nas!

Vjerujem da je glad u većini slučajeva naučena reakcija. Naša želja za jelom određena je kombinacijom reakcija tijela na količinu hrane koju smo pojeli i reakcija uma na sve okolišne čimbenike oko nas (kao što su TV reklame i boje, fontovi i dizajn na pakiranjima grickalica).

Bebe se ne rađaju gladne i često ih se mora probuditi da bi jele tijekom prvih nekoliko dana života. Postupno se navikavamo na to da jedemo u određeno vrijeme ili s određenim ljudima. Naviknemo se na to da imamo nešto u želucu i na uživanje u određenoj hrani.

Zapravo, neprestana želja za jelom može se čak povezati s nekom vrstom ovisnosti. U svojoj najprodavanijoj knjizi o prehrani, *South beach dijeta*, autor dr. Arthur Agatston govori o našoj ljubavi prema šećeru kao „ovisnosti o šećeru“[23]. Možda je bio na dobrom tragu s tom izjavom. Prema nedavno objavljenom članku psihijatra Olivera Grimma u časopisu *Scientific American Mind (Američki znanstveni um)*, istraživanja su pokazala da su ovisnosti o drogama i prejedanje vrlo slični s „neurološkog gledišta“[24]. Drugim riječima, mozak reagira na hranu na isti način kao što bi reagirao na tešku drogu poput kokaina.

Iz vlastitog iskustva s postom mogu reći da se naviknete na taj osjećaj. Postane ga lakše kontrolirati s obzirom da se tijelo počne navikavati na osjećaj potpuno praznog želuca.

Nisam siguran je li to zato što se tijelo brže prebacuje iz stanja sitosti u stanje posta ili je to jednostavno posljedica navikavanja na osjećaj praznog želuca. Što god bilo u pitanju, postaje lakše. Čak i ako osjetite „glad“ dok postite, obično ne traje dulje od nekoliko minuta.

U knjizi *Ratnička dijeta* Ori Homekler navodi da *„Kroz povijest, ljudi su se morali nositi s gladi i to ne samo jer si nisu mogli priuštiti hranu ili su bili izloženi sušama i neimaštini. Učiti kako se nositi s gladi također se prakticiralo namjerno kako bi ljudi postali čvršći i snažniji te bolje se nosili sa životnim teškoćama.“*[17]

Moji prijatelji koji su uveli prakticiranje posta u svoje živote govore da su stekli osjećaj „slobode“ tijekom dana. Ljudi su često povezivali razdoblja posta s osjećajem veće svjesnosti, ambicioznosti, želje za natjecanjem i kreativnosti. Ne samo to, već više ne morate neprestano planirati dan kako bi pravilno tempirali idući obrok.

Zdravstvene blagodati posta

Zdravstvene blagodati posta

Nakon što sam proučio sva istraživanja o postu koje sam mogao pronaći, iznenadile su me sve zdravstvene blagodati koje post pruža. Sjećate li se kasnih 1990-ih kada je Mediteranska dijeta postala popularna? Taj stil prehrane temeljio se na istraživanju koje je provedeno na Kreti (Grčka). Istraživanje je ukazivalo na to da je stil prehrane ljudi na području Mediterana bolji od stila prehrane ljudi iz Sjeverne Amerike.

Krećani su u prosjeku zdraviji od stanovnika Sjeverne Amerike te se kod njih pojavljuje manje slučajeva kardiovaskularnih i srčanih bolesti. Istraživači su njihovo dobro zdravlje pripisali svakodnevnom visokom unosu cjelovitih žitarica, voća, povrća i maslinovog ulja.

To je imalo smisla s obzirom da su sve te namirnice prihvaćene kao „zdrava“ hrana. No, grupa istraživača s Medicinskog fakulteta Sveučilišta na Kreti nedavno je pregledala spomenuto istraživanje i ustanovila da je jedan vrlo važan čimbenik izostavljen. Grčka pravoslavna crkva preporučuje prilično duga razdoblja posta.[25]

Pravoslavna crkva predviđa kombinaciju ograničavanja unosa kalorija i posta na sveukupno od 180 do 200 dana godišnje. Iako ovo nikako nisu čvrsti dokazi, ipak ukazuju na to da je vrlo zdrava skupina ljudi, osim što je konzumirala prilično velike količine zdrave hrane, također rutinski prakticirala post[26].

Kada sam završio svoje istraživanje došao sam do zaključka da je kratkotrajni (jedan do tri dana), povremeni (nikada za redom) post učinkovit i lak način za smanjivanje količine kalorija koju unosimo, ali i za smanjivanje količine neželjenog masnog tkiva u tijelu, a također je povezan i s mnogim nevjerojatnim zdravstvenim blagodatima.

U desecima objavljenih i recenziranih znanstvenih istraživanja otkriveno je da su blagodati za zdravlje od kratkotrajnog povremenog posta sljedeći:

- Smanjena količina masnog tkiva i tjelesne mase
- Održavanje skeletne mišićne mase
- Smanjena razina glukoze u krvi
- Smanjena razina inzulina u krvi i povećana osjetljivost na inzulin
- Povećana lipoliza i oksidacija masnog tkiva
- Povećana količina mitohondrijske bjelančevine razdvajanja 3 mRNK
- Povišena razina norepinefrina i epinefrina
- Povišena razina glukagona
- Povišena razina hormona rasta

Prema mome mišljenju, to je prilično dugačak popis, slažete se? Najnevjerojatnija činjenica je da se mnoge od tih zdravstvenih blagodati mogu pojaviti nakon samo 24 sata u stanju posta!

Iz višegodišnjeg radnog iskustva u industriji sportskih dodataka prehrani mogu reći da, ako biste uspjeli napraviti tabletu sa svim tim tvrdnjama o zdravlju, imali biste proizvod na kojem biste mogli zarađivati sto milijuna dolara godišnje! Te su zdravstvene tvrdnje toliko dojmljive!

Ako post omogućuje sve te nevjerojatne blagodati, to nas dovodi do pitanja – bismo li svi trebali postiti?

Kako bismo saznali odgovor, detaljnije ćemo pregledati neke od tih zdravstvenih tvrdnji.

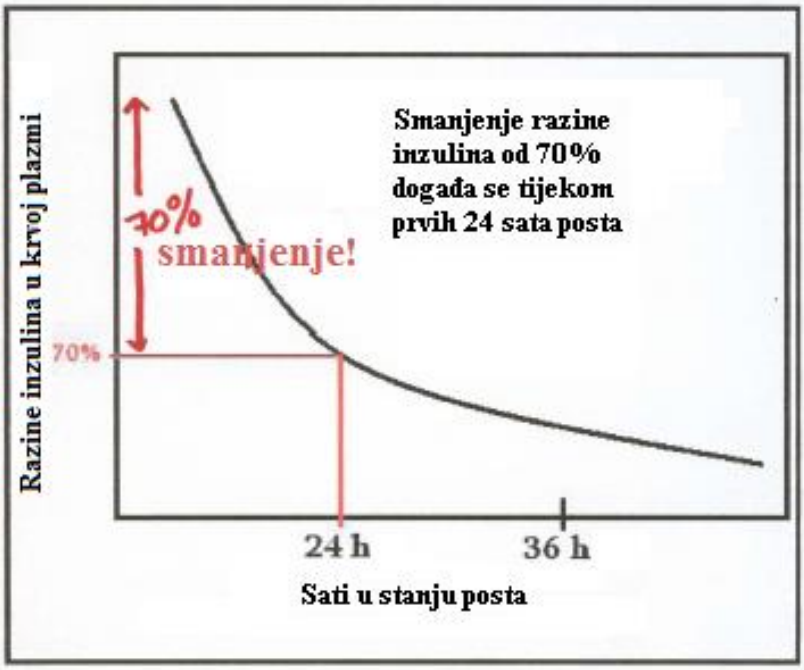
Smanjena razina inzulina u krvi i povećana osjetljivost na inzulin

Inzulin je jedan od najvažnijih hormona u tijelu. Svaki udžbenik o nutricionizmu, medicini i fiziologiji ima barem jedno poglavlje koje je u potpunosti posvećeno učincima inzulina na tijelo.

Kada jedete, razine inzulina u tijelu se povećavaju. Glavna je uloga tog hormona pohranjivanje hranjivih tvari. Drugim riječima, inzulin šalje signal tijelu da pohrani energiju iz hrane kao masno tkivo i glikogen. Jednostavno rečeno, kada su razine inzulina visoke, tada ste u stanju pohranjivanja. Uz to, kada su razine inzulina povišene, tada ne možete otpuštati stanice masti iz masnih zaliha – dakle, kada su razine inzulina povišene tada tijelo ne sagorijeva masno tkivo.

Mnogi popularni stilovi prehrane, kao što su *Zona* i *South Beach* dijeta, temelje se na kontroliranju razine inzulina. Ti stilovi prehrane to naizgled postižu tako što predlažu često konzumiranje malih obroka koji imaju slabiji utjecaj na razine šećera u krvi. Često konzumiranje malih obroka, ili obroka niskog „glikemijskog indeksa“ (mjera koja prikazuje utjecaj obroka na razine šećera u krvi) može pomoći „kontrolirati“ ili „ujednačiti“ razine inzulina. Dokazano je da kratak post od 24 sata drastično smanjuje razine inzulina u krvi![27]

U istraživanju provedenom na ljudima koji su postili 72 sata, inzulin u krvnoj plazmi značajno se smanjio i dosegnuo razinu manju od polovice početne razine. Ono što je još dojmljivije jest da se smanjenje od 70 % dogodilo tijekom prvih 24 sata posta[28].



Povećana lipoliza i sagorijevanje masnog tkiva

Postoji nekoliko vrlo važnih koraka kod procesa sagorijevanja masnog tkiva. Prvo, masno se tkivo mora „otpustiti“ iz pohranjenih stanica masti. Znanstvenici to zovu lipoliza, a to opisuje proces otpuštanja masnih kiselina koje sačinjavaju masno tkivo te premještanje tih masnih kiselina u krvotok.

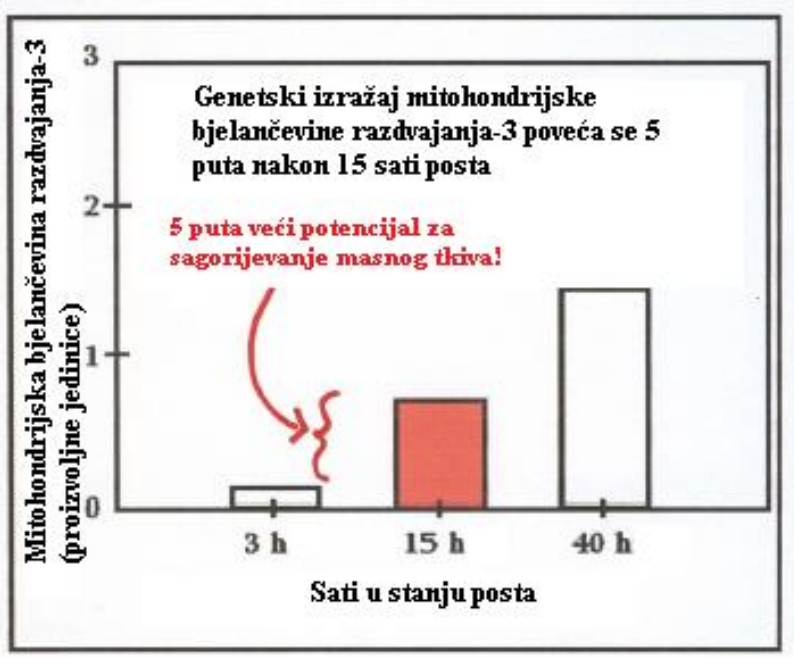
Nakon niza koraka koji omogućuju masnim kiselinama da dođu do mitohondrija (pećnica svake stanice u tijelu), te masne kiseline podvrgavaju se procesu zvan oksidacija. To je posljednji korak kod sagorijevanja masnog tkiva – kada se to dogodi, masno se tkivo iskoristi za energiju. Nema ga i više se ne može vratiti. Ponovimo to ukratko; masno se tkivo mora otpustiti s mjesta gdje je pohranjeno, premjestiti se u tijelu i doći do stanične peći gdje će tada sagorjeti.

Mišići igraju veliku ulogu u određivanju brzine metabolizma kada se odmaramo. Kada postimo mišići mijenjaju izvor energije i počinju oksidirati masne kiseline kao izvor energije. Drugim riječima, dok postimo mišići se pretvaraju u strojeve za sagorijevanje masnog tkiva.

Mitohondrijska bjelančevina razdvajanja-3 vrlo je važna bjelančevina koja se nalazi u mišićima te je povezana sa sagorijevanjem masnog tkiva. Jednostavno rečeno, kada se poveća intenzitet

sagorijevanja masnog tkiva, poveća se i količina mitohondrijskih bjelančevina razdvajanja-3 u mišićima.

U jednom izvrsnom istraživanju otkriveno je da se nakon samo 15 sati posta genski izražaj za mitohondrijsku bjelančevinu razdvajanja-3 poveća 5 puta![29]



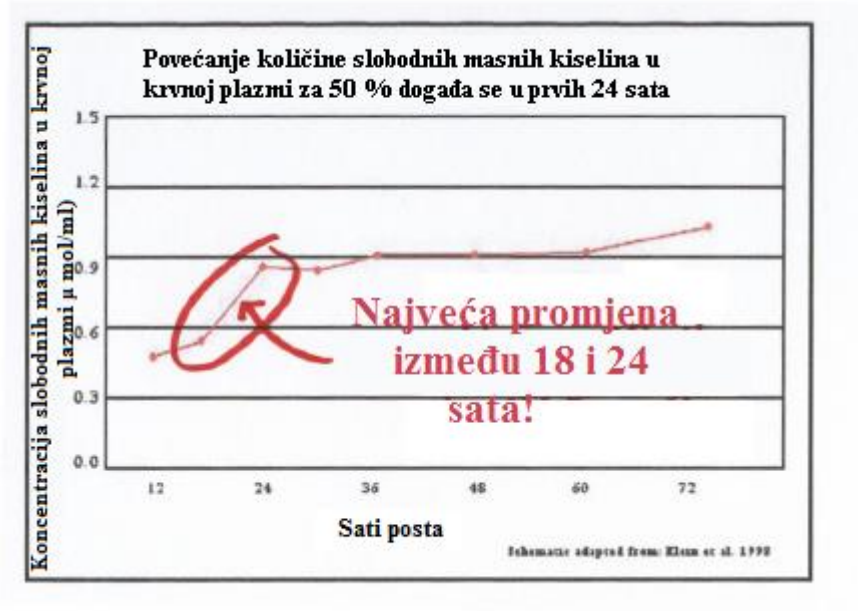
Sagorijevanje masnog tkiva glavni je cilj svakog restriktivnog stila prehrane. Nikada ne biste trebali gubiti tjelesnu masu a da pritom ne gubite masne naslage. U knjizi *Moć bjelančevina*, dr. Michael Eades čak je izjavio da bismo se trebali „*potpuno odmaknuti od zamisli da želimo izgubiti tjelesnu masu*“ i usredotočiti se na gubljenje masnog tkiva u tijelu[30].

Srećom, razdoblje posta od 24 sata prebacuje tijelo iz stanja sitosti u stanje posta, a to uzrokuje veliko povećanje što se tiče lipolize (otpuštanje masnog tkiva) i oksidacije masnog tkiva (sagorijevanje). Jednostavno rečeno, post omogućuje tijelu da se odmori od stvaranja masnog tkiva i počne ga sagorijevati!

Od svih informacija koje sam pročitao u istraživanjima, najkorisnije su vjerojatno one iz istraživanja koje je provela grupa znanstvenika s Odsjeka za medicinu u Galvestonu sa Sveučilišta u Texasu. Proučili su kakav utjecaj kratkotrajan post ima na metabolizam masnog tkiva i šećera u tijelu.

Nakon samo 24 sata posta, količina masnog tkiva koja se otpušta iz zaliha masti kod ljudi (lipoliza) i količina koja se sagorijevala kao gorivo (oksidacija) povećala se za više od 50 %.

To je vrlo značajno povećanje intenziteta sagorijevanja masnog tkiva.



Povišena razina glukagona

Ako stanja sitosti i posta smatramo yinom i yangom metabolizma, onda bi se inzulin i glukagon mogli smatrati hormonalnim ekvivalentima stanja sitosti i posta.

Inzulin je hormon koji dominira u stanju sitosti, funkcija mu je pohranjivanje kalorija iz hrane u obliku masnog tkiva i glikogena. Glukagon je jedan od hormona koji je dominantan u stanju posta, a funkcija mu je sagorijevanje masnog tkiva.

Kratki pregled:

Inzulin = stvaranje masnog tkiva

Glukagon = sagorijevanje masnog tkiva

Glavna uloga glukagona je održavanje stabilne razine šećera u krvi dok je tijelo u stanju posta. To čini prebacivanjem tijela u stanje „sagorijevanja“.

Glukagon ima nekoliko nevjerojatnih učinaka na tijelo, a neki od njih su održavanje stabilne razine šećera u krvi, povećavanje sagorijevanja masnog tkiva u tijelu, snižena proizvodnja kolesterola i otpuštanje viška tekućine iz tijela.

Zbog uobičajenog načina na koji se hranimo, gotovo svo vrijeme provodimo u stanju metabolizma kojim „dominira inzulin“ (prisjetite se: inzulin = stvaranje masnog tkiva). Dodavanjem posta u stil života dopuštate tijelu da povrati prirodnu ravnotežu između metabolizma kojim „dominira inzulin“ i metabolizma kojim „dominira glukagon“.

Povišena razina epinefrina i norepinefrina

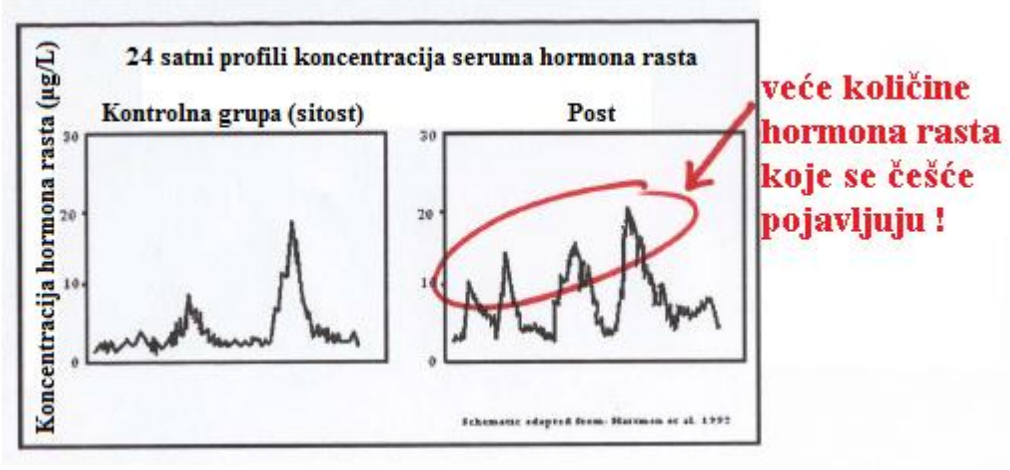
Epinefrin i norepinefrin su hormoni stresa (borba-bijeg), a poznati su i kao adrenalin i noradrenalin. Kada ih tijelo izluči u krvotok, šalju signal za otpuštanje glukoze iz zaliha energije i potiču sagorijevanje masnog tkiva. Pored toga, pružaju osjećaj razbuđenosti i pozornosti. Post povećava količinu tih hormona u krvi. To je način na koji tijelo održava stabilnu razinu šećera u krvi i povećava zalihe energije potičući otpuštanje masnih kiselina iz masnih zaliha.

Povišena razina hormona rasta

Hormonu rasta posvećuje se puno pažnje ovih dana. Šire se glasine da mnoge najpoznatije osobe iz Hollywooda uzimaju hormon rasta jer im pomaže pri sagorijevanju masnog tkiva, izgradnji mišića i navodno djeluje „protiv starenja“. Mnoge tvrtke koje se bave proizvodnjom dodataka prehrani žurno pokušavaju pronaći nešto što bi im omogućilo da na svojim proizvodima mogu naznačiti da povećavaju razinu hormona rasta.

Ironično je to što sam iz svog tog istraživanja shvatio da možete povećati količinu hormona rasta koja se izlučuje u tijelu ako to želite, a sve što trebate učiniti je postiti. Istraživanja su pokazala da kratkotrajan post može povećati razinu hormona rasta gotovo šest puta[25,31].

Zaista, post može dovesti do značajnog povećanja količine hormona rasta u krvotoku. Taj isti hormon rasta koji slavne osobe, bodybuilderi i fitness modeli na crnom tržištu plaćaju tisućama dolara može se dobiti potpuno besplatno, samo je potrebno postiti!



Istraživanja zapravo podupiru glasine da uzimanje hormona rasta pomaže sagorjeti masno tkivo, izgraditi mišiće i ubrzati metabolizam[32,33]. No ta nevjerojatna povezanost između hormona rasta i posta nema ništa s ubrizgavanjem hormona rasta.

Post uzrokuje „reakciju hormona rasta“ i upravo to sprječava gubitak mišića tijekom posta[34,35]. S obzirom da mišići velikim dijelom određuju brzinu metabolizma, hormon rasta također igra važnu ulogu u održavanju brzine metabolizma tijekom posta[36].

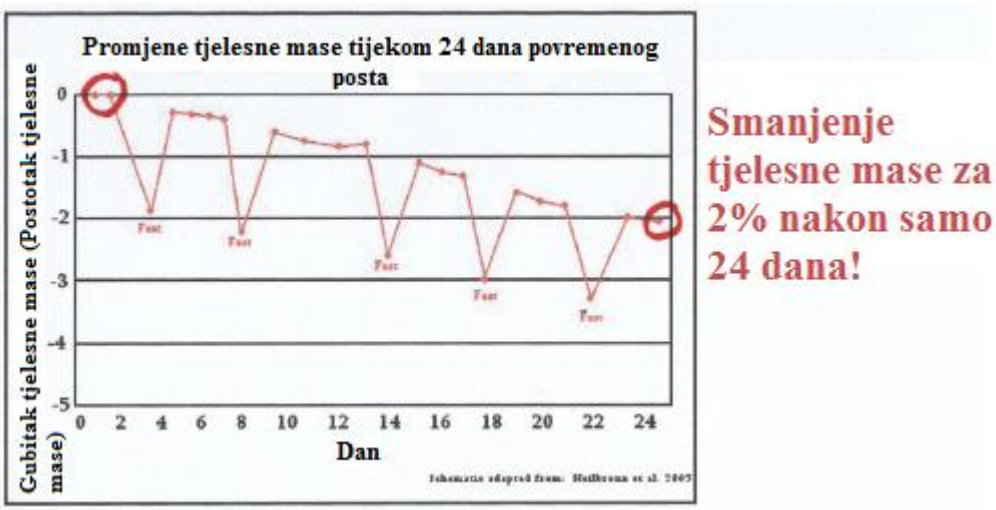
Hormon rasta, osim što sprječava gubitak mišića dok postite, iznimno je važan za postupak otpuštanja pohranjenih stanica masnog tkiva da bi se mogle upotrijebiti za energiju!

Ta „reakcija hormona rasta“ na post toliko je važna da su neki istraživači zapravo tvrdili da je u yinu i yangu stanja sitosti i stanja posta hormon rasta taj koji dominira u stanju posta jer uzrokuje sagorijevanje masnog tkiva i očuvanje mišićne mase, a ne glukagon[37].

Povećani gubitak tjelesne mase i povećani gubitak masnog tkiva

Kao što možete primijetiti, post sve savršeno priprema za gubitak masnog tkiva i tjelesne mase. Metabolički priprema tijelo povećavajući razinu svih hormona potrebnih da bi se povećalo sagorijevanje masnog tkiva. K tome, stvara i veliki energetski deficit, tako da tijelo nema drugog izbora nego da sagorijeva masno tkivo za energiju.

Istraživanja su pokazala da ćete izgubiti od 1 do 1,5 kg tjelesne mase svaki put kada postite[8]. TO SE NE ODNOSI SAMO NA MASNO TKIVO. Veliki dio te mase čini gubitak viška vode iz tijela (zbog inzulina pohranjujete više vode pa tijelo obično počne otpuštati vodu kada se razine inzulina smanje). Uz to gubite i masno tkivo, ali to je spor i stabilan proces. Kod većine restriktivnih stilova prehrane dolazi do gubitka od 0,5 do 1 kg masnog tkiva tjedno. Dodavanjem kratkotrajnog posta u stil života dobit ćete isti učinak (samo bez ograničavanja kalorija).



U istraživanjima, osobe koje su koristile kratkotrajni post kao metodu za smanjivanje tjelesne mase uspjele su izgubiti više tjelesne mase u razdoblju od deset tjedana od osoba koje su prakticirale stil prehrane s vrlo niskim unosom kalorija.

Ono što je još dojmljivije je da su ljudi prakticiranjem posta kao metode za kontroliranje tjelesne mase u većini slučajeva uspjeli održati novu tjelesnu masu tijekom cijele godine. Tu nastaje značajna razlika jer su osobe nakon prakticiranja restriktivnih stilova prehrane s niskim ili vrlo niskim unosom kalorija imali sklonost da ponovno dobiju svu izgubljenu tjelesnu masu u roku jedne godine nakon prakticiranja spomenutog stila prehrane[38].

Zdravstvene blagodati - Zaključak

Kao što i sami možete zaključiti, za veliku većinu nas, odgovor na pitanje „Trebamo li postiti?“ je glasno i jasno DA!

Za zdrave osobe koje žele jednostavan i učinkovit način za smanjivanje tjelesne mase kombinacija kratkotrajnog posta i vježbanja lak je način za stvaranje kalorijskog deficita, a da pritom ne dođe do nikakvih negativnih učinaka po metabolizam ili mišiće. Prakticiranje posta od 24 sata jednom ili dvaput tjedno mogao bi biti najjednostavniji način za smanjivanje unosa kalorija za 20-30 %, bez odricanja i ograničavanja jelovnika. Rezultat je isti kao da ste se cijeli tjedan strogo držali restriktivnog stila prehrane, a zapravo ste žrtvovali samo dan ili dva.

Dakle, postom se može postići dugotrajno **ograničavanje unosa kalorija (jedina dokazana *nutricionistička* metoda za gubitak tjelesne mase)**, pri čemu se žrtvuje samo jedno ili dva vremenska razdoblja od 24 sata tjedno te se time ponovno uspostavlja **ravnoteža između stanja sitosti i stanja posta**.

Ono što je kod tih otkrića najbolje jest da, s obzirom na to da se mnoge zdravstvene blagodati posta pojavljuju u prva 24 sata; možemo postiti na kratka razdoblja i tako **NIKADA NEĆE PROĆI DAN, A DA NE JEDEMO!**

Način života prema načelu „Jedi, stani, jedi“

Način života prema načelu „Jedi, stani, jedi“

Važno je odmah naglasiti da ovo ne smatram običnim restriktivnim stilom prehrane. Nema nikakvih faza, sustava skupljanja bodova, nema vaganja namirnica niti nedopuštene hrane. Neću reći da je šećer uzrok problema s pretilosti, jer nije. Niti su masti krive. Uzrok problema s pretilosti je u tome što ne shvaćamo da odgovor tražimo na pogrešnom mjestu. Pretilost ne nastaje zbog jednog određenog makronutrijenta u prehrani. Zapravo, problem uopće nije u stilu prehrane. Prema mome mišljenju, glavni uzrok epidemije pretilosti je profit. Dokle god ljudi zarađuju od toga što mi jedemo, uvijek će pronalaziti načine na koje bi nas potaknuli da jedemo. Iz vlastitog iskustava mogu reći da je profit glavni uzrok problema s prekomjernom tjelesnom masom, a hrana je samo oruđe. Da posjedujete veliku tvrtku koja proizvodi prehrambene proizvode, ne biste li htjeli da svi jedu što je više moguće tih prehrambenih proizvoda?

Upravo je to razlog zašto „Jedi, stani, jedi“ nije običan restriktivni stil prehrane; to je stil života koji se temelji na prehrambenom običaju uključivanja kratkotrajnog posta u svakodnevni život. Ukratko, to je način života gdje prihvaćate zamisao o kratkim 24-satnim pauzama od jela i bavite se vježbama snage (vježbanje s utezima) najmanje 3 puta tjedno.

To je to. Jednostavno rečeno, način života prema načelu „Jedi, stani, jedi“ znači prakticiranje 24-satnog posta jednom ili dva puta tjedno uz predanost redovnom vježbanju. Svo moje istraživanje dovelo me do zaključka da je to najbolji način za smanjivanje ukupne tjelesne mase, održavanje mišićne mase i pobiranje nevjerojatnih zdravstvenih blagodati povezanih s postom.

Razlog zbog kojeg ovo ne smatram običnim restriktivnim stilom prehrane je taj što je način života prema načelu „Jedi, stani, jedi“, za razliku od svih popularnih stilova prehrane, samo dodatak načinu na koji jedemo i održiv je do kraja naših života.

To je najlakši način za gubljenje viška masnog tkiva te održavanje vitkog i zdravog tijela, a za prakticiranje nije potrebno nikakvo mukotrpno planiranje u vezi prehrane. Kupovina u posebnim prodavaonicama nije potrebna, kao ni egzotična hrana i skupi dodaci prehrani. Ono što je potrebno jest uzdržavanje od jela, idealno na razdoblje od 24 sata dva puta tjedno.

I što je najbolje, nikada neće proći dan, a da ne jedete!

Kako postiti

Da biste postili 24 sata, jednostavno jedite kao što biste inače jeli do 18h prvog dana, a zatim postite do 18h idućeg dana. Primjerice, mogli biste započeti post u ponedjeljak u 18h, a završiti ga u utorak u 18h. Ako postite na taj način možete jesti svaki dan, a također ćete napraviti stanku od jela u trajanju od 24 sata. Što je još važnije, tako ćete prekinuti groznu naviku zbog koje neprestano ostajete u stanju sitosti te ćete ponovno ustanoviti metaboličku ravnotežu između stanja sitosti i stanja posta.

Također, sve to možete prilagoditi vlastitom životnom stilu. Ako vam ne odgovara od 18h do 18h, pokušajte postiti od 14h do 14h. Stil života prema načelu „Jedi, stani, jedi" vrlo je fleksibilan. Ako ste planirali započeti post u utorak, ali je nešto iskrsnulo i morali ste otići na večeru s prijateljima, ne brinite, jednostavno možete započeti post idućeg dana.

Ako ste bolesni ili se ne osjećate dobro, onda ne morate postiti. To je fleksibilno dugoročno rješenje. Nekim tjednima ćete možda postiti samo jednom, a drugima dva puta. Sve ovisi o vama i vašim osobnim sklonostima. Postite onako kako vama odgovara!

Onim danima kada jedete unosite količinu kalorija koju biste i inače unosili kada jedete **normalno** i pritom pokušajte poštivati ono što ja volim zvati „zlatno pravilo prehrane".

„Jedite manje, ali uživajte u hrani koju jedete. Jedite puno voća i povrća, puno bilja i začina. I što je vjerojatno najvažnije, smanjite stres povezan s biranjem vrste hrane koju jedete."

Obratite posebnu pozornost na posljednju rečenicu. Svi stavovi i gledišta stručnjaka iz područja nutricionizma, svi znanstvenici koji ističu svoja istraživanja i svoje tzv. zaključke, sve se zasniva na pretpostavci da svaki dan neprestano jedemo.

Ako počnete prakticirati životni stil prema načelu „Jedi, stani, jedi", sve to postaje nebitno. Možete uživati u blagodatima restriktivnog stila prehrane kao i u blagodatima kratkotrajnog posta, a sve to dok jedete na jednostavan i održiv način, odnosno tako što jednom ili dva puta tjedno postite 24 sata.

Kada biste postili samo dva puta tjedno mogli biste smanjiti unos kalorija za 25 % (zapravo je 30 %, ali sam uračunao 5 % prostora za pogreške). Za osobu koja jede 2 500 kalorija dnevno, to je

kao da ste smanjili unos na 1 875 kalorija svakog dana u tjednu! To je 625 kalorija manje, svaki dan!

To je kao da uklonite jedan cijeli cheeseburger s krumpirićima iz svog stila prehrane, SVAKI DAN!

Ono što je ključno za uspjeh stila života prema načelu „Jedi, stani, jedi“ je samokontrola. Nakon što završite post, važno je da nastavite jesti kao što biste inače jeli. Sami sebe podsjetite da se ne trebate nagrađivati velikim obrocima ili dodanim slasticama. Svrha posta je dodavanje pauze *uobičajenoj rutini prehrane*.

Onog trenutka kada post završi, jednostavno nastavite jesti onako kao što biste jeli i inače. Opet ponavljam, bez dodatnih nagrada, bez ogromnih porcija, samo nastavite jesti onako kako biste i inače jeli.

Smatram da je to prihvatljivo. Većina restriktivnih stilova prehrane traži da se odreknete određene hrane, a sve što je ovdje potrebno jest da nastavite jesti onako kako biste i inače jeli. Ako si želite poboljšati prehrambene navike dok prakticirate načelo „Jedi, stani, jedi“, samo naprijed.

Mogu se dogoditi samo dobre stvari ako dodate više voća i povrća u stil prehrane te smanjite unos šećera, ali činite samo ono što je unutar vaše zone ugode. Vjerujem da će najviše zdravstvenih blagodati proizaći iz posta, ali sve će pozitivne promjene pomoći.

Evo još jedne nevjerojatne blagodati životnog stila prema načelu „Jedi, stani, jedi“; istraživanje je pokazalo da, čak i kad biste se na danima kada jedete prejedali do te razine da ne biste uopće smanjivali tjelesnu masu, svejedno biste osjetiti neke od zdravstvenih blagodati povezanih s postom[39].

Sa životnim stilom prema načelu „Jedi, stani, jedi“, osim što možete smanjiti tjelesnu masu, istraživanja su pokazala da možete poboljšati važne pokazatelje zdravlja, kao što je osjetljivost na inzulin.

Prakticiranje životnog stila prema načelu „Jedi, stani, jedi“ najjednostavniji je način da si poboljšate zdravlje, pri čemu ne morate pretjerano ograničavati izbor hrane koji je dozvoljen za konzumaciju.

Što činiti tijekom posta

S obzirom da se ne radi o običnom restriktivnom stil prehrane, ispisivanje dvjesto stranica receptima, uputama za kombiniranje hrane ili tablicama o preporučenom unosu kalorija ili bjelančevina bilo bi u potpunosti nepotrebno.

Bio bi to potpuni gubitak mog vremena za pisanje, a i vremena koje biste vi izgubili čitajući. Umjesto toga, bilo bi bolje da vam dam nekoliko savjeta kojima si možete malo olakšati post.

Najvažnija stvar koju morate zapamtiti jest da trebate piti puno tekućine; to će pomoći izbjeći žeđ, a žeđ često zamijenimo za glad.

Ujutro započnite dan velikom čašom vode. Crna kava i čaj također su dozvoljeni tijekom posta. Također, dijetalni gazirani sokovi bi mogli biti od koristi i nemojte se brinuti oko umjetnih sladila tijekom posta; prema mome mišljenju zdravstvene će blagodati posta nadjačati bilo kakvu moguću zabrinutost povezanu s unosom umjetnih sladila. Naravno, sami donosite konačnu odluku u vezi toga.

Također, moglo bi pomoći i to da si zadate posla dok postite. John Barban, trener programa „Varsity Strength“ i autor blogova www.womensworkout.blogspot.com te www.6minutecircuts.com isprobavao je prakticiranje posta tijekom posljednjih 6 mjeseci. Nedavno mi je rekao: „Najlakše mi je postiti kada sam pun obaveza. Mislim da, kada bi ljudima životi bili malo uzbudljiviji, ne bi morali jesti toliko puno i mogli bi izvući malo više radosti iz svog dana.“ Ta je izjava vrlo istinita.

Hrana je oblik „bioloških povratnih informacija“. To je oblik stimulansa u našim svakodnevnim životima. Dakle, kada nam u nekom dijelu dana manjka uzbuđenja ili ne bude stimulativan (kao kada zapnete u prometu tijekom velike gužve na cesti), stimulaciju tražimo u hrani i grickalicama.

Dogodi li vam se ikada da vam je jako dosadno na poslu? Jeste li ikada primijetili koliko često ste onda posegnuli za grickalicama ili si pravili kavu? To je zato jer ste zamjenjivali mentalnu stimulaciju sa stimulacijom kroz hranu.

Pomalo složeno, ali to je kratak odgovor na pitanje zašto bismo trebali ostati zaposleni dok postimo.

Osim što ćete si zadati posla, dan možete provesti kao i bilo koji drugi. Možete ići na posao, u kupovinu, na trening. Što god biste inače radili tijekom dana.

U tome je čar stila života prema načelu „Jedi, stani, jedi“. To je najjednostavniji način za smanjivanje količine masnog tkiva, poboljšanje zdravlja i općeg blagostanja, a ne zahtijeva drastičnu promjenu načina života.

Zaključci načela „Jedi, stani, jedi“

Zaključci načela „Jedi, stani, jedi“

Nadam se da je do sada postalo očito da su kratka razdoblja povremenog posta u kombinaciji s vježbama snage (dizanje utega) lak i vrlo učinkovit način za smanjivanje tjelesne mase. Također može pomoći kod ispravljanja nekih negativnih učinaka na metabolizam koji se pojavljuju zbog provođenja previše vremena u stanju sitosti.

I dok mnogi restriktivni stilovi prehrane naglašavaju planove, knjige s receptima i tablice prihvatljivih i neprihvatljivih namirnica, to nije potrebno da biste počeli živjeti životnim stilom prema načelu „Jedi, stani, jedi“.

I dalje preporučujem da jedete raznoliko voće i povrće u kombinaciji s nemasnijim izvorima bjelančevina, ali naglašavam da se tijekom prakticiranja životnog stila prema načelu „Jedi, stani, jedi“ ne morate pretjerano brinuti o vrsti hrane koju jedete.

Od sada pa nadalje možete uživati u hrani koju jedete i u tome što znate da sa životnim stilom prema načelu „Jedi, stani jedi“ možete smanjiti višak masnog tkiva, izgraditi mišiće, jesti svaki dan i da nikada više ne morate pratiti nekakav suludi restriktivni stil prehrane koji je trenutno u trendu.

Često postavljana pitanja u vezi načela „Jedi, stani, jedi“

Često postavljana pitanja u vezi načela „Jedi, stani, jedi“

Pitanje:

Želim smanjiti količinu masnog tkiva u tijelu i izgraditi malo mišića. Rečeno mi je da moram jesti velike količine bjelančevina svaki dan kako bih izgradio mišićnu masu. Neće li post uzrokovati gubljenje mišića?

Ne, dokle god izvodite vježbe snage, nećete izgubiti mišićnu masu. Zapravo, moguće je dobiti mišićnu masu prilikom prakticiranja načela „Jedi, stani, jedi“.

Pitanje:

Isprobavao sam životni stil prema načelu „Jedi, stani, jedi“ tijekom nekoliko prošlih tjedana, ali povremeno dobijem glavobolje tijekom posta, zbog čega se to događa?

Puno se istraživalo o postu za vrijeme Ramazana i povezanosti posta s glavoboljama. Čini se da su žene posebno podložne glavoboljama tijekom posta. To nije zbog dehidracije[40,41], već zapravo može biti nešto slično simptomima odvikavanja, slično glavoboljama koje dobijete kada odjednom prestanete piti kavu. Iz vlastitog iskustva mogu reći da se glavobolje, ako do njih dođe, obično prestanu pojavljivati nakon prvih nekoliko razdoblja posta.

Pitanje:

Zaista uživam u dodavanju posta u svoj plan prehrane, ali ipak bih želio jesti zdraviju hranu kada ne postim, imate li koji savjet?

Možete se pridržavati bilo kojeg stila prehrane dok prakticirate načelo „Jedi, stani, jedi“. Moje je osobno mišljenje da opće pravilo prehrane „nemasno i zeleno“ s puno voća, povrća, biljki i začina idealno nadopunjuje stil života prema načelu „Jedi, stani, jedi“, ali možete se pridržavati bilo kojeg stila prehrane želite.

Pitanje:

Što još mogu činiti tijekom posta, a da mi pomogne pri gubljenju masnog tkiva?

Moj prijedlog je da ubacite intervalne treninge u program vježbanja i da pratite solidan, dobro osmišljen plan vježbanja namijenjen za gubitak masnih naslaga.

Pitanje:

Ako počnem prakticirati životni stil prema načelu „Jedi, stani, jedi“, koliko brzo ću mršavjeti?

Znanstveno je dokazano da ne možete u danu izgubiti ono što se godinama nakupljalo. Pomoću životnog stila prema načelu „Jedi, stani, jedi“, trebali biste uspjeti smanjivati tjelesnu masu tempom od 0,5 do 1 kg tjedno.

Pitanje:

Trebam li uzimati multivitamine na dane kada postim?

Ne, ako imate uravnoteženu prehranu multivitamini općenito nisu potrebni. No, ako volite uzimati multivitamine, onda samo naprijed, nastavite i dalje, to neće imati negativnog utjecaja na zdravstvene blagodati posta.

Pitanje:

Pročitao sam da je sva masa izgubljena tijekom posta od vode i mišića, a ne od masnog tkiva i da se to sve ponovno vrati kada se ponovno počne jesti. Je li to istina?

To nije istina. Tijekom samog razdoblja posta, tjelesna će masa biti niža nego inače. To je zbog toga što nemate hrane u probavnom sustavu i jer je tijelo izbacilo višak vode. Međutim, nakon nekoliko razdoblja posta, gubitak kilograma do kojeg dolazi vrlo je stvaran i to je uistinu zbog gubitka masnog tkiva.

Pitanje:

Čuo sam da će mi nedovoljni unos kalorija usporiti metabolizam i prebaciti me u „stanje gladovanja" zbog čega ću pohranjivati još više masnog tkiva. Hoće li se to dogoditi ako usvojim stil života prema načelu „Jedi, stani, jedi"?

Ne. Kod stila života prema načelu „Jedi, stani, jedi" nikada ne prođe dan, a da ne jedete. Većinu vremena provest ćete jedući hranu bez da se išta promijenilo. Dnevni unos kalorija biti će niži samo tijekom onih dana kada započnete i završite post. Sveukupno tjedno smanjenje kalorija trebalo bi iznositi otprilike 15-25 % bez ikakvih negativnih učinaka za metabolizam.

Pitanje:

Postoje li nekakvi posebni dodaci prehrani koje bih trebao uzimati dok postim?

Ako je liječnik od vas tražio da koristite određeni dodatak prehrani, molim vas da onda to i učinite. Prema mome mišljenju, nema potrebe za uzimanjem dodatnih ili posebnih dodataka prehrani tijekom posta.

Pitanje:

Čuo sam da su kratkotrajna razdoblja posta, slična onima u životnom stilu prema načelu „Jedi, stani jedi", proučavana na životinjama. Pročitao sam da im to može povećati očekivanu životnu dob. Je li to istina?

Istina je. Zapravo, Dr. Mark Mattson provodi istraživanje o tome u ustanovi *National Institute on Aging (Nacionalni institut za starenje).* Istraživanja ukazuju na to da životinje stare sporije i žive duže kada konzumiraju manje kalorija. To istraživanje pokazuje da se taj učinak može postići time što jedemo manje svaki dan ili da povremeno postimo[42].

Pitanje:

Zašto moram postiti 24 sata? Zar ne mogu postiti samo 18 sati ili čak 36 ako želim bolje rezultate?

Odgovor je dvostruk. Prvo: Prema istraživanjima, nakon 24 sata posta tijelo dosegne optimalnu razinu za sagorijevanje masnog tkiva. Drugo: Ja, kao i mnogi od prvih praktičara stila života prema načelu „Jedi, stani, jedi“ smo, kroz pokušaje i pogreške, otkrili da razdoblje od 24 sata najmanje ometa svakodnevni ritam života. Razdoblje u trajanju od 24 sata imalo je najviše smisla s praktičnog i znanstvenog gledišta.

Napomena: Tijelo zapravo počinje sagorijevati značajno više masnog tkiva nakon otprilike 18 sati posta. To se stabilizira nakon 30 sati. Ako ne uspijete uvijek doći do punih 24 sata, nemojte brinuti, zdravstvene blagodati su i dalje prisutne.

Pitanje:
Čuo sam da je doručak najvažniji obrok u danu. Hoće li biti negativnih posljedica ako propustim doručak na dan kada postim?

Nema nikakvih znanstvenih dokaza koji upućuju na to da je doručak išta važniji od ručka ili večere kada su u pitanju odrasle osobe. Zapravo, nema znanstvenih dokaza koji dokazuju da su tri obroka dnevno išta bolja od samo jednog.

Pitanje:
Mogu li trudnice prakticirati životni stil prema načelu „Jedi, stani, jedi“?

Ne. Životni stil prema načelu „Jedi, stani, jedi“ ne bi trebala prakticirati nijedna trudnica ili žena koja pokušava zatrudnjeti. Nakon trudnoće, posavjetujte se s liječnikom da biste provjerili je li životni stil prema načelu „Jedi, stani, jedi“ prikladan za životne okolnosti u kojima se trenutno nalazite.

Pitanje:
Znam da su crna kava, dijetalni sokovi i voda u redu tijekom razdoblja posti, ali što je sa žvakaćim gumama bez šećera?

Osobno sam koristio žvakaće gume bez šećera tijekom posta. Većina tih proizvoda sadrže 2-3 kalorije po komadu, tako da korištenje žvakaćih guma smatram prihvatljivim tijekom posta.

Pitanje:
Znam da ste rekli da post uzrokuje otpuštanje norepinefrina i epinefrina te da bih se zbog toga trebao osjećati razbuđeno i pozorno, ali to kod mene nije slučaj. Zapravo, ponekad imam glavobolje i osjećam se anksiozno nakon posta. Nekada se tako osjećam čak i 2 do 3 sata nakon što počnem jesti. Zbog čega se to događa?

Postoji sve više istraživanja koja upućuju na to da bi mnogi ljudi mogli biti ovisni o šećeru i da šećer može imati psihoaktivna svojstva, slično kao i mnoge droge[43]. Moguće je da su glavobolje i anksioznost posljedica odvikavanja od šećera. Iz vlastitog iskustva mogu reći da bi nakon još nekoliko razdoblja posta ti osjećaji trebali nestati.

Pitanje:

Bodybuilder sam i želio bih pokušati postiti. Mogu li i dalje uzimati dodatke prehrani na dane kada postim (pokušavam izgraditi još mišića)?

Imate sreće jer jedini dodatak prehrani za koji je dokazano da dugoročno povećava snagu i mišićnu masu je kreatin monohidrat. A s obzirom da se kreatin ne metabolizira za energiju i ne podiže razinu inzulina u krvi, korištenje kreatina tijekom dana kada postite je apsolutno prihvatljivo (No bez obzira na to svejedno bih preporučio korištenje kreatina na dane kada jedete).

Pitanje:

Mog oca zanima životni stil prema načelu „Jedi, stani, jedi“, ali je dijabetičar, može li i on isprobati životni stil prema načelu „Jedi, stani, jedi“?

Životno stil prema načelu „Jedi, stani, jedi“ osmišljen je za zdrave osobe koje pokušavaju smanjiti tjelesnu masu. Ako vaš otac želi pokušati prakticirati životni stil prema načelu „Jedi, stani, jedi“, trebao bi to učiniti pod pažljivim liječničkim nadzorom.

Pitanje:

Na početku knjige „Jedi, stani, jedi“ napisali ste da životni stil prema tom načelu može poboljšati zdravlje i možda čak spasiti život, to su prilično odvažne izjave, čime ih potkrepljujete?

Trenutno se provodi puno istraživanja o kratkotrajnom postu i njegovoj mogućnosti da poboljša određene pokazatelje zdravlja. I dok bi bilo prerano da kažem kako post može pomoći kod određenih zdravstvenih problema, mogu reći da se uspješno koristio u kliničkim istraživanjima kod ljudi koji boluju od astme[44] te se pokazalo da smanjuje upale u tijelu[45], a i proučava se zbog potencijala za poboljšanje zdravlja mozga[46].

Pitanje:

Moja kći ima 14 godina i pretila je, može li ona prakticirati životni stil prema načelu „Jedi, stani, jedi“?

Nažalost ne, ne može. Sva istraživanja koja su se provodila o postu provodila su se na odraslim osobama; nema načina na koji bih mogao znati kakve učinke post ima na djecu. Životni stil prema načelu „Jedi, stani, jedi“ preporučam samo zdravim odraslim osobama.

Pitanje:
S obzirom da se po vijestima govori kako je šećer loš, ne bi li trebala smanjiti količinu šećera koju jedem ako želim smanjiti tjelesnu masu?

Da, trebali biste i hoćete. Gledajte na to ovako, ako ste jako dosljedni i stalno pazite na vrstu hrane koju jedete, preskačete deserte i izbjegavate mnoge vrste hrane s velikom količinom šećera, a inače biste to jeli, možda biste uspjeli smanjiti ukupni unos šećera za 30 %.

S druge stane, mogli biste nastaviti jesti kako i inače jedete, a postiti dva puta tjedno po 24 sata te tako smanjiti unos šećera za 30 %. Time što postite dva od sedam dana u tjednu, automatski smanjujete unos šećera za otprilike 30 %, a sve to zbog toga što propuštate dva razdoblja za jelo u trajanju od 24 sata. Životni stil prema načelu „Jedi, stani, jedi“ odličan je način za postizanje istih rezultata kao i onih koje biste dobili prateći strogi restriktivni stil prehrane BEZ da cijeli dan provodite pazeći na svaki komadić hrane koji stavite u usta.

Pitanje:
Pročitao sam da stilovi prehrane koji preporučuju visok unos bjelančevina pomažu pri gubitku viška tjelesne mase. Mogu li pratiti stil prehrane s visokim unosom bjelančevina uz prakticiranje životnog stila prema načelu „Jedi, stani, jedi“?

Naravno. Postoji nekoliko istraživanja koja predlažu da bi unos većih količina prehrambenih bjelančevina mogao biti povezan s ubrzanom stopom gubitka viška tjelesne mase (dokle god je stil prehrane kalorijski restriktivan). U većini istraživanja koje sam pregledao ljudi su jeli između 100 i 150 grama bjelančevina dnevno (ne suludih 250 grama kao što se preporučuje u nekim stilovima prehrane iz časopisa o fitnessu). Ako to želite, svakako možete pratiti stil prehrane bogat bjelančevinama dok prakticirate životni stil prema načelu „Jedi, stani, jedi“.

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