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MONOGRAPH

“Study of the food pyramid, importance and change over the last decade”

STUDENT:

Giuliana Romero Cavagnaro

ADVISER: LCDO. Laura Ortuño

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Summary

There are few people who independently seek to nurture themselves correctly, adapting themselves to their personalities, routines and the hustle and bustle of their lives. Unfortunately they get carried away by what they can or cannot consume or by the options that are is their reach or have the time to prepare. However, it is necessary to know the correct way to consume the correct variations of nutritive elements a body requires. For this, the food pyramid is an effective technique which consists of the organization of food, based on the characteristics or properties that each individual possesses.

The food pyramid is recommended for all types of people catering and corresponding to all the individual needs or requirements. In other words, it is the most basic and beneficial ways to order classify and balance any and all food which should be consumed daily. The purpose of this pyramid is that the ingredients or daily food intake be distributed by their components.

Through this monograph, we will learn about how the food pyramid works and how we can have a healthy and balanced diet without restriction and without going hungry in order to have a better quality of life.

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Introduction

The following monographic work is a research on the study of the food pyramid, its importance and the changes it has undergone in the last decade, which is no longer limited or serves the purpose of making the different types of foods that exist in the pyramid known, but also helps us to analyze what it means to have a good diet while maintaining balance, which will help us stay healthy physically as well as mentally.

When we talk about the study of the food pyramid, many of us do not really know what it is. It is commonly thought of that it only refers to the different types of food that we should consume but in reality it is much more than that. The food pyramid is a guide that helps us to know the importance of each food group, the frequency with which we must consume each food and what benefits they offer a human being. Although each person and body is a different world, it is vital to have some knowledge about the food pyramid in order to maintain a healthy and balanced diet, above all.

Many authors and institutions dedicate themselves to talking about this important topic, such as, for example, Alvarado Elías and Luyando José in their book "The perception of young adolescents in Monterrey, Nuevo León", Verónica Dapcich, Mónica Ruiz, among others. He talks to us about how food has changed over the years and how we should adapt to these changes without losing the true essence of what it means to eat well.

The monograph will consist of 3 chapters: the first will deal with the importance and division of each food group with its respective explanation; in the second chapter we talk about the characteristics that a good diet must have and what we call healthy and unhealthy foods; finally, in the third chapter, recommendations are given on how to carry a healthy diet without restrictions towards good mental health.

Needless to say that the in-depth study of this subject leaves us with a great lesson about what it really means to eat well, this would only help us to stay physically active as well as contributes and helps us with our studies and day-to-day activities. In addition, it should be emphasized that it is something that we could adapt and adopt into our daily life and with which we will be able to lead a healthy life that will always keep us to keep fit and in good health.

Chapter I

Food pyramid

1. Definition

Inicialmente, la pirámide original, fue propuesta por el Ministerio de Agricultura de Estados Unidos, en el año 1992. Posteriormente se han ido desarrollando variantes, pero siempre bajo el mismo concepto, que es consumir más alimentos de la base y menos de los escalones o tramos superiores. (Sociedad Española de Nutrición Comunitaria, 2002, p. 24)

The food pyramid is a guide with different the types of food that every human being should consume daily, balancing their intake and so promote the best and most sound diet well-being, generating good health and well-being all round. This, of course also depends on the individual, as each person is unique and how each body and so handles an equally unique metabolism making it virtually impossible for everyone to follow the same exact diet, yet it serves as a guide of the closest requirements and perimeter possible.

The objective of this pyramid is to show everyone what the benefits of maintaining a balanced diet are as well as to offer warning of the possible disadvantages of consuming our intake in a disorderly fashion or fall into bad habits or routines that may bring with them, terrible consequences. Nevertheless, the bottom line is that the most important fact to keep in

mind is that no two people are the same and so, the table is to be looked upon simply as a standardized means to transmit general information, but is a far cry from being exact. Nevertheless, it can be used as a rule to measure the amount of each food group. By following its guidelines we may develop our bodies to their fullest potential using it to, optimize our nutrient input to benefit us in every aspect simply by taking precautions and following the recommended balanced amount of each of the nutrients specified in this table.

1.1 Importance about the food pyramid.

The importance of good and well balanced nutrition is essential for the well-being of human beings, therefore it is essential to be aware of all the benefits that each of the food groups provide us, and to learn how we may replace certain foods from our basic basket for others, as they may contain the same amount of nutrients but may have other added nutrients and vitamins that are fortifying rather than harmful. By following these easy steps and including physical exercise as an important part of our daily routine we will be better able to prevent any short or long term diseases.

1.2 Division of the food pyramid.

The food pyramid consists of divisions of five levels that indicate the recommended food one should consume daily to maintain a healthy, stable and a staple diet; combined and interchanged to obtain the maximum benefits they offer.

On the basis that one's food intake those staples which must be consumed in major quantities are, derivatives of grain such as breads, cereals, past, rice etc., as these provide us with the fuel for the energy we need to function properly as well as the benefits it offers the digestive devices or system.

The following level shows the fruits and vegetables, produce major benefits on having been consumed raw or steamed provide the body much needed vitamins and minerals.

In the third level of the pyramid we find animal by products: meat, chicken, fish, eggs and lacteal, the daily recommended portion should be consumed in lesser quantities, offering mainly proteins to the body.

At the top of the pyramid sugars and fats such as refreshments, butter, oils, sugar, sweets, and so on can be found. These of course must be consumed with moderation therefore occupying the narrowest space as an indicator to the minimal consumption recommended.

“Los alimentos de un grupo no pueden reemplazar a los de otro. Ningún grupo de alimentos es más importante que otro— para la buena salud usted los necesita todos” (United States Department of Agriculture, 20003, p. 4).

1.2.1 Function of each group.

1.2.1.1 Liquids.

To provide optimum hydration vital for all, living beings, allowing the transport of nutrients to organs and tissues, and helping the vital functions of the body to respond correctly. The general recommendations one to two liters of water daily, but we must agree that when it comes to the intake of liquids, restraint must be applied. The main concern is to have sufficient liquids in our system to maintaining our body hydrated but not so much as that we eliminate all our potassium, vitamins and minerals.

The principal drinks to be considered are mineral waters, waters of spring or even tap water containing a low sodium content followed by tap water with a major content of sodium. Another form are drinks with an additional caloric contribution as in fruit or vegetable juices; Including broths, lacteal products with and without sugar, moisturizing drinks, tea or coffee with sugar; in penultimate place the drinks carbonated, the sweetened ones with any type of fructose and finally alcoholic drinks which are neither recommended nor mentioned in these groups of liquids since they offer no benefits nor can we be obtain any good supply of

hydration or nutrients from these, although it has been proved that in some cases they have proven themselves moderately beneficial for adults.

It is not necessary to obsess drinking too much water as this might be the cause of problems, doing more harm than good.

1.2.1.2 Bread and cereals, pasta and rice.

The first levels in the food pyramid, and the most important in caloric and energetic contributions, necessary to heal, are made up of carbohydrates, represented by: bread, cereals, pasta, rice, eggs and leguminous fresh meats. Carbohydrates predominate over all, as they are necessary to offer support a good supply of energy, the advisable portions can vary between 3 to 6 times a day depending on the physical activity that the individual realizes, corporal composition, sex, amongst other activities. Although most fear the consumption of carbohydrates it is vital and plays an important role in the leveling of sugar in the blood, generated after its consumption, besides, there are some which provide us with sufficient energy to realize all our daily activities.

1.2.1.3 Vegetables and fruit.

In the second level of the food pyramid, foods contributing principally in fiber, vitamins, mineral and antioxidant, mainly corresponding to this is an important food groups because by consuming from this food group, these in turn maintain our body healthy, inside and out. Contributing sufficient nutrients to provide us a protective and well-functioning ingestion it is said that:

Es importante comer la máxima variedad posible de distintos alimentos vegetales para asegurar una ingesta de todas estas sustancias protectoras. Es innecesario y en general no se requiere por motivos de salud tomar suplementos de vitaminas o sustancias extraídas de las plantas como reemplazo, además de ingerir buenos alimentos sanos. (Organización Mundial de la Salud, 2000, p. 13)

Generally, this is the group which is most recommended to be consumed although many do not give it the importance it should have. Of vegetables it is said that the advisable amount is a minimum of two daily portions and of fruits, the recommendations vary between three to four daily portions. Nevertheless, we must bear in mind that everything in excess is bad and the same goes for the intake of fiber as well.

1.2.1.4 Milk and dairy products.

The next level is where milk and its by product which are an excellent source of calcium, besides contributing proteins, lactose and several essential vitamins as well these,

fulfill the most important function in the formation of teeth and bones. Thanks to this great contribution, calcium also contributes in the prevention of several diseases as the osteoporosis. A scientific study says that:

El yogur fresco y otras leches fermentadas se incluyen en el grupo de los alimentos probióticos. Estos alimentos poseen algunos efectos beneficiosos: mejoran la respuesta inmunitaria, reducen las molestias en personas con mala absorción de la lactosa, protegen al intestino contra los microorganismos patógenos, etc. (Sociedad Española de Nutrición Comunitaria, 2002, p. 12)

Suffice to say, there is no other means more important in the formation of teeth and bones that the calcium intake provided by two to four daily shares of lacteal represented in milk, cheese, yogurts, etc. And even more so depending on the age and physiology of a person who is in stage of pregnancy, lactation or a senior citizen when the ingestion of calcium must increase anywhere between 1000 and 1300 mg daily.

1.2.1.5 Meat, fish, eggs and nuts.

Proteins can be found on the fourth level. This group influences the growth, development of muscles and repair of organs and fabrics. Proteins are of a high biological and digestive value. It is recommended that one consume two to three daily portions in addition to other foods of main groups mentioned earlier. Accompanied by, or, if you prefer, the

equivalent of five or seven daily ounces. Fish, dry beans and peas are recommended as well as to consume more lean meats, skinless chicken, having a lower percentage of fat, perhaps one could eat meat with the minimum of fat and to the equivalent of dried fruits, they should be consumed moderately because they have a caloric high contribution of fats.

1.2.1.6 Fats, Oils and Sweets.

Finally, in the fifth level, sweets and oily products that belong to the food group to which we must eat less frequently and moderately to achieve a caloric significant contribution with the minerals and necessary vitamins. One recommends eating food with low contributions of fats and sugars, because this food contains sugars and simple fats that do not contribute great nutritional value towards us. Nevertheless, this does not want to say that we should eliminate the group completely since we need sugars and fats to obtain a good and balanced supply.

Chapter II

Good nutrition

2. Characteristics of a good nutrition

When we talk about good nutrition people think is about being restrictive and not eating their favorite food, but it isn't actually like that, we can have good nutritious diet by incorporating any kind of food we want in moderation.

La alimentación diaria junto con el estilo de vida adquirido durante años, serán la causa de la aparición de muchas enfermedades crónicas como la obesidad, el sobrepeso, la hipertensión, las enfermedades cardiovasculares, la diabetes tipo II o los trastornos de la conducta alimentaria. Las enfermedades crónicas tienen efectos en la calidad de la vida de las personas que las padecen, son causa de muerte y tienen efectos económicos negativos en la sociedad. (S.n, 2016, p. 62)

It is important that all human beings worry about our health without becoming overly obsessed, what is involved is that you can live a calm and balanced life without having to worry about what kind of food we eat instead of the nutrient. In these times it is difficult to achieve a diet without restrictions since the media lately, distorts and disseminates all kinds of information that is usually not even confirmed to be true which is the reason why some organizations have said

“Hoy en día se resalta la importancia de lograr una alimentación saludable y, para ello, en todos los medios de comunicación se requiere, según los expertos, una dieta suficiente y equilibrada, que contenga los nutrientes esenciales” (UNICEF, 2011).

Our general nutritional intake can be based on the food that we consume, which comes close to being a relationship of the mind, body and soul, sometimes this topic is taken so seriously by some, that is taken so seriously by some, that they become obsessed occasionally are quite difficult so overcome. That they end up destroying the person as human beings.

This is the reason for which we should not take it upon to determine which diet to follow, it is better to consult and speak with a professional who can clarify doubts on what a good well balanced diet is for each person as individuals without allowing us to get to the point of becoming obsessed with either our physique or with everything we consumed.

2.1 Healthy food

Eating healthy has turned a new fashion-fad, but do we really know that it means to eat healthy? It is not possible to classify any particular food as being completely healthy? All

the food in his just portion is healthy for our development and functioning of the body, is the excesses those that provoke an alteration in our organism when we cannot consume them adequately.

It is true that there is food which requires major consumption, as the quantity of nutrients these offer they are those which should prevail in our daily diet.

Se entiende por requerimientos nutricionales la cantidad de todos los nutrientes que una persona debe ingerir para mantener un estado de nutrición y desarrollo adecuados, permitiendo un crecimiento óptimo durante la infancia. (Ruiz, Herrera y Suarez, 2011, p. 31)

There is a reason for which it is said that we must consume foods of all types because our body requires something from each of the daily food groups for different reasons. For example, we extract several vitamins and minerals from fruits and vegetables, which besides being a good source of energy and fiber, it reinforces our immune system.

Carbohydrates, on the other hand are our principal source of energy and for this it should not be eliminated under any circumstance there is a type of disease of for average and alone under the supervision of a professional, elimination of this food might cause health problems. The proteins are the managers of generating and supporting the different fabrics of the body, and finally dietary fat is the most energy dense macronutrient, it gives you a steady and reliable source of energy.

What is recommended is to consume the least amount of processed food possible, basing our diet on natural food, in other words, that which the land offers us. In this way we provide our body with the best nutrients it needs to carry out day-to-day activities, and we also manage to maintain ourselves in the best physical way to prevent any type of disease.

2.2 Unhealthy food.

Actualmente, el concepto de alimentación saludable, con los aportes nutricionales necesarios o balanceados, constituye no solo un fenómeno sanitario, sino que involucran otros aspectos sociales que se nutren de identidades diversas. También se ha convertido en un hecho polémico dado que no hay una reglamentación clara en México de lo que debería ser una alimentación que pueda hacer todo miembro de la sociedad y que se considere saludable. (Alvarado y Luyando, 2012, p. 48)

What we call bad food usually refers to fast food, sweets, fried foods, etc. But in reality it is not about that, as it was said before no food can be classified as good or bad, what happens is that we have a bad concept of what the food itself is.

Eating a hamburger or an ice cream once in a while does not do any harm to our body, which generates bad health is the excesses. Eating a daily hamburger plus fries and ice cream can generate long-term imbalance in our body as this would not be providing all the

requirements that our body needs. That is why there is always talk of having balance in food intake, which is not always easy for everyone because we do not moderate our portions, which is essential to achieve our goal.

2.2.1 Processed food.

Processed food is nothing more than something that the industry tries to sell for their own benefit, in which there is no ingredient necessary for human beings but it is very desired by people. Marketing has achieved that these products be the most consumed worldwide, thus affecting the health of human beings, we should be more aware of these foods since, in the long term they are affecting our health. A very clear example of how these products affect us is that when a fast meal is needed, the first thing that is chosen would be the so-called snacks that give us empty calories and do not nourish our body. Nevertheless, this by no means suggests that we should completely eliminate these foods, rather it is necessary to become aware that by consuming them properly and infrequently and if our daily diet is not based on that, there is no harm done.

Chapter III

Foundations for good nutrition

3. Balance diet

We call a balanced diet to the way we feed in such a way that we consume varied foods in quantities adapted to our requirements and personal conditions. This does not mean that we should eat food in excess; the important thing here is the quantity and frequency of consumption of each food.

It must be emphasized that eating in a balanced way requires learning about how to consume each type of food so that it may provide us with only that which we require, avoiding excesses that do not generate anything positive in our body.

It is recommended and our bodies require to at least consume the three main meals that would come to be: breakfast, lunch and dinner. Although there are people who prefer and decide to eat five meals a day, but that depends on what the person prefers and finds to be more efficient for them.

3.1 The importance of having a good breakfast

“El aporte energético-calórico del desayuno es de gran importancia, ya que nos permitirá lograr un adecuado rendimiento tanto físico como intelectual, en las tareas escolares y en el trabajo diario” (Verónica Dapcich, 2001, p.27).

It is often said that if you do not eat breakfast, nothing bad would happen and that it is not an important meal. But, the truth is that there are great differences when one does not eat breakfast and you can see it daily, of course not all persons are the same so they may not be affected equally so it cannot be said that tells are all exactly the same, but the checklist will coincide in many ways.

Usually people who do not have breakfast are more likely to go pecking or snacking throughout the day, besides not performing well in the activities they do throughout the day including physical activity, many people feel weak or dizzy. This of course would be considered logical, and the reason would more than likely be because they don't feed well.

There is honestly no need to eat as soon as we get up because there are people who wake up and are not hungry but, if you could wait awhile and even, if you are not hungry, try to eat something that give us nutrients needed to start our morning off in the best possible way.

Breakfast brings with it several benefits. It is not uncommon to find people who do not eat breakfast, but when they start doing it; they begin to lose weight (if they need it) because their meals begin to be more organized. It also helps us to maintain our adequate nutritional

levels, it gives us the energy necessary to be more productive during the day, and it favors our capacity of concentration among other things.

Breakfast is a meal which should be made up of 40% fruit, 40% carbohydrate and 20% protein. It depends on each person as to how one prefers to consume each of these nutrients and not get bored by always eating the same thing time and again. Each person can try to organize themselves to vary the food they eat according to their own particular liking and taste.

3.2 Lunch.

Lunchtime is an important moment in the day as it is at this time when we take a break from what we are doing and recharges our batteries to refresh the energy a body needs to continue activities the rest of the day. It is important that we give ourselves some time to consume something that gives us the energy we need in such a way that we do not feel tired and do not starve to death before dinner.

Although sometimes or almost of the time we say that "we have no time", people should take this food seriously, because it helps us to maintain our metabolism active and the levels of sugar in our body appropriate.

It is a fundamental meal that contributes to a third of the daily nutritional contribution for children and adolescents, so that it helps in the development and healthy growth of each one of them. In the same way, it also helps adults or seniors by giving them the strength and calories necessary to finish their day of activities without wanting for naught.

Lunch is made up of 40% fruits/vegetables, 40% carbohydrates, 20% protein. It is important not to forget the consumption of vegetables; you are giving us necessary and important energies for our organism. “Teniendo en cuenta que la mejor manera de alcanzar un estado nutricional adecuado es incorporar una amplia variedad de alimentos en nuestra dieta diaria, es conveniente tratar de incorporar en la comida alimentos de los diferentes grupos de la pirámide” (Verónica Dapcich, 2001, p.28).

Most people avoid lunch time because they think that way they will lose weight but what really happens when skipping meals is that the metabolism starts to work incorrectly, often causing weight gain, it is better to keep a healthy and balanced diet without going hungry.

3.3 Dinner.

When we talk about dinner most of the people panic a little because today's society has made believe that eating at night will contribute to weight gain but in fact there are several nutritionists and scientists who emphasize that:

La cena es, generalmente, la última comida del día y debemos procurar consumir aquellos alimentos de la pirámide que no hemos consumido en la comida. También debemos tratar de consumir alimentos fáciles de digerir, como verduras cocidas, sopas, pescados o lácteos, para tener un sueño reparador no perturbado por una digestión difícil. (Verónica Dapcich, 2001, p.28)

Dinner is a food as vital as the others because if we do not consume it, the body would go through a fast of approximately twelve hours (depending on when our last food was ingested) which makes our body and organism work slow and that when we wake in the morning, we feel tired, dizzy and in several cases, very hungry.

This meal represents 30% of all the food intake of the day, it is recommended to consume as light as possible to not feel with fullness or fatigue during the night and to be able to rest in the best way possible.

It provides the necessary nutrients and minerals needed by our body during the night and early morning, it is also essential for the proper functioning of the digestive system. It is very important not to skip it since it would cause an unbalanced diet and it does not heal that in the long term it could harm our health.

Dinner consists of 50% fruit/vegetable, 20% carbohydrate, 30% protein. The percentages vary depending on each person and need, there are people who distribute their

meals in another way, and the important thing is that we consume what is recommended for us in the manner in which it is easier for us.

Conclusions

- At the end of this monographic work it is concluded that a diet is considered healthy when all or the great majority of the products that compose it are healthy food that contribute a variety of nutrients and calories that allows to cover the daily needs without excesses or deficiencies.
- Healthy food is characterized for being concentrated naturally a variety of nutrients, is natural food offered by the own nature and is better when they do not happen for industrial processes.
- Healthy food can go through an industrial process and remain healthy but can also stop being considered as such if it goes under processes of physical-chemical changes that diminishes its nutritional quality or in turn, by the significant incorporation of artificial additives or because of its poor nutritional value and high caloric value.
- On the other hand, the healthy supply must include aspects on frequency of consumption of every type of food, quantity of emaciated food and forms of preparation and ingredients of the above mentioned food. We should not get carried away by the myths, we must inform ourselves well on a subject before believing anything we read or hear about from others.

- We must remember that eating is a pleasure and when you learn what it means to eat well, eating well is what a pleasure becomes. The obsessions are never good and much less if we speak about alimentation, we must learn to find the balance sheet between the mental health and the physical health so that we are in the best possible form, both mentally and physically.

- To conclude let's remember that every person is a world unto themselves and what works for you may not work for everyone else and the best thing we should do is to try not to compare ourselves with others.

Recommendations

- Lead a more active life: Sedentariness brings inconveniences to our organism in the long term, whereas the opposite, maintaining an active lifestyle permits our body to feel good physically. We can stay active by doing any number of activities, it can be anything from walking or even doing sports, the important thing is to stay active.
- Consume more fruits and vegetables daily: the consumption of these foods will give us satiety, energy and vitamins that our body needs every day, apart from making us feel good internally because the fiber helps our metabolism.
- Reduce the intake of processed food: try as much as possible so that our diet is based on natural foods which offer more benefits for our health.
- Hydrate enough: it is important to keep our body hydrated because it gives us several benefits besides being very necessary for our body to function properly.

References

- Alvarado, E y Luyando, J. (2012). Alimentos Saludables: La Percepción de los Jóvenes adolescentes en Monterrey, Nuevo León. [Traducido al español de Healthy Foods: The Perception of the Youth Teen in Monterrey, Nuevo León].
- Dapcich, Verónica et al. (2001). Guía de la Alimentación Saludable. 2ª ed. España: SENC.
- La Nutrición y Su Salud: Guías Alimentarias Para la Población Estadounidense (2003) [Traducido al español de Nutrition and Your Health: Dietary Guidelines for Americans] United States: USDA y DDHS.
- Ruiz, Mónica., Herrera, Eva. & Suarez, Rosa. (2011). Menús saludables desde los 4 a 18 años. España: SofPrint, S.L.

