

Balanced or Unbalanced Nutrition

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Abstract

For balanced or unbalanced nutrition means a way to feed themselves properly both in terms of quantity and quality. The balanced diet is aimed to ensure an adequate intake of energy and nutrients, preventing both shortages and nutritional excesses (both harmful). To be balanced nutrition should also be varied. In this way, in fact, it is more likely to be taken in the right amounts of all the nutrients that the body needs. Additionally, the negative consequences are minimized due to the ingestion of potentially harmful substances, which may be present from the outset or formed as a result of machining processes, preservation and cooking the food. Nutritionally induced alterations to both the physical and molecular composition of sperm evidently implicate it as the mediator of these impacts on both the father's fertility and the health of the next generation, sparking renewed research interest in spermatogenesis and the detrimental effects of obesity.

Keywords: Nutrition; Neuropeptide Y; Obesity

Introduction

Nutrition is the set of biological processes that allow, or that affect the survival, growth, development and the integrity of a living organism, of all the kingdoms (animal, plant, fungi, bacteria, archaea, protists), on the basis of the availability of energy and nutrients.

It is therefore distinguishable from the power supply, which in physiology is regarded as the moment of the corresponding nutrition action to provide nutrients to the body, and to the changes that food undergoes in the digestive tract. In biology, gastroenterology, internal medicine, the words "nutrition" and "power" reflect different aspects, with clinical implications, therapeutic, distant biochemical. In the science of nutrition it is rather customary to use the two terms interchangeably.

The living are united by certain fundamental aspects but they differ in detail. The special and different metabolism of an organism from another will determine the nutrients for themselves and those useless or toxic. For example, some prokaryotes use hydrogen sulfide as a nutrient, but this gas is poisonous for the majority of animals. Metabolic rate affects the amount of food that a body requires, influence its feeding behavior. It is considered now known that a poor diet can have a damaging impact on human and animal health, causing deficiency diseases in humans such as scurvy, rickets, risky health conditions such as obesity and common chronic systemic diseases such as disease cardiovascular, diabetes and osteoporosis. The diet of poverty is obviously linked to the specific nutritional needs of the organism in question, which may also vary considerably between related species, for example where the essential amino acids may be different or the

same vitamins. The rat, for example, is able to synthesize their own vitamin C necessary to the own body, the guinea pig no.

Nutrition of each body is based on the principle that health status is maintained through the recruitment, through food, the nutrients needed to:

- Provide chemical energy for the maintenance of vital functions and for bodily activities, oxidizing simple and complex glucides, lipids, proteins and amino acids, but also, depending of the bodies, the most varied chemical substrates, from inorganic molecules, to polyphenols, to hydrocarbons of oil.
- Provide plastic material for the growth, the remodeling and tissue repair using proteins, carbohydrates, lipids and other molecules.
- Providing material regulator of metabolic reactions as essential chemical elements in inorganic form (mineral), vitamins, and other molecules.
- Supplying backup material as fat in adipose tissue, glycogen, starch, and so on.

The diet of the study produced the development of a real food science. In general, men can survive for two to eight weeks without food, depending on the fat deposited in the body. The waterless survival is instead limited to three or four days. Food shortages remain a serious problem, with about 300,000 deaths from starvation every year. In fact there is also the opposite problem of hunger, obesity, than in industrialized countries grows in an almost epidemic, leading to health problems and increasing mortality.

Obesity on Male Fertility

Obesity is a disease caused by excessive accumulation of fat that has very negative effects on the person's health, thus reducing its life expectancy.

Obesity, both in adults and children, is a growing problem in increasing in Western societies and is determined by many factors including the 'excessive caloric intake of food, a sedentary lifestyle, genetic predisposition, taking medication and the presence of endocrine and psychiatric diseases. In the most severe forms of obesity hyperplastic component it can also be present in adulthood and the number of fat cells tend to remain constant even during slimming, constituting an obstacle to weight loss.

The lipolysis in fact active neuropeptide Y (NPY) [1] which acts at the central level by stimulating the feeling of hunger, thereby preventing the adipocyte volume falls below a threshold value. The most important issue to remember is that obesity is associated with

hypertension, and hypertension is associated with numerous other diseases that can affect overall health and life expectancy. Anti-hypertension medications should be started if hypertension is diagnosed. But, with weight-loss, a significant fall in blood pressure may permit a decrease in the number of medications taken or decrease the amount of medication taken. Prevention would be better than any drug. Use lifestyle changes with weight reduction (maintaining BMI 18.5 to 24.9 kg/m²), DASH diet (eating fruits, vegetables, and low-fat dairy products with reduced content of saturated and total fat), a decrease in dietary sodium (2.4 g sodium or 6 g sodium chloride), an increase in physical activity (for 30 minutes per day) and moderate consumption of alcohol. Weight-loss is the most important step in reducing hypertension and improving quality of life.

Recent studies have found a link between male fertility problems and obesity. In fact, being overweight or obese is one of the central causes of male infertility and more specifically, of sperm health problems. A study found that men with a higher body mass index (BMI) had a significantly higher risk of being infertile compared with men considered to be normal weight. In fact, the study found that an increase of just 20 lbs. could increase the chance of male infertility by approximately 10% (Figure 1).

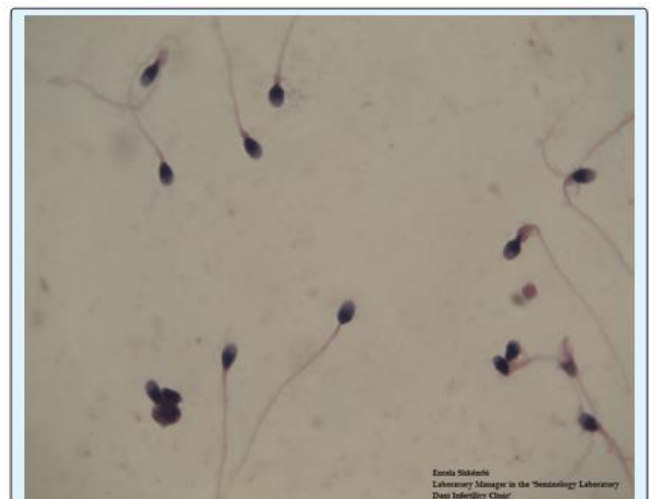


Figure 1: Obesity on Male Fertility.

In addition, obesity can have a number of other effects on male fertility:

- low sperm count and concentration
- hormonal imbalance
- increased scrotal temperature
- decreased libido

- increase of free radicals by the presence of excessive energy derivatives (ATP) with consequent oxidative stress of sperm do

As such, it is important to maintain good overall health in order to reduce the risk of male fertility problems and in order to maintain good reproductive health.

Due to these difficulties in interpreting data from human studies, rodent models of male obesity have now been established to assess the impact of male obesity on sperm function, however it is necessary to be aware of the differences between species. These studies have demonstrated that males fed a high fat diet to induce obesity had reduced sperm motility and a decrease in percentage of sperm with normal morphology, however it should be noted that a number of these studies had significant reductions in testosterone [2,3] and altered glucose homeostasis [2] in their high fat diet groups which could be contributing to the results.

It was recently rediscovered the role of numerous nutritional supplements such as zinc, copper, proanthocyanidins, arginine, L-Carnitine, L-Acetylcarnitine, omega 3, glutathione, Coenzyme Q10, Vitamin B12, Folic Acid, Vitamins C, D, E and combined in various ways they are used to improve the quality of the semen.

Conclusion

Good nutritional habits and a balanced diet aren't developed in one day, nor are they destroyed in one unbalanced meal. Healthful eating means a lifestyle of making choices and decisions, planning, and knowing how to make quick and wise choices when you haven't planned. What you learn about eating in these first years on your own will help establish good dietary patterns for the rest of your life. Making the break from home cooking and becoming responsible for choosing the foods you eat is part of the challenge of becoming a mature and an independent adult. It is a challenge that should not be taken lightly.

The nutritional habits you develop now will be difficult to change in the coming years when your body stops growing and your lifestyle may become more sedentary. Learning to make sensible choices from a confusing array of options is not easy, but the rewards are great. Eating nutritious and healthful food while maintaining your proper body weight will contribute to a better performance in the classroom, in the gym, and on the dance floor. You will feel and look your best.

There are numerous studies that validate the correlation between obesity and male infertility which is much more pronounced when combined with the presence of comorbidities such as diabetes, hypertension, dyslipidemia (hypertriglyceridemia and hypercholesterolemia with cholesterol increase in "bad" LDL and reducing the "good" cholesterol HDL), smoking, alcohol, age and exposure to particular chemicals like phthalates found in some types of paints. The above mentioned factors as a whole constitute what is termed "metabolic syndrome." According to the American body NIEHS-AHS would be enough increased by 9kg to decrease the likelihood of human fertility. It is calculated that the incidence in the male population of association between obesity and infertility is equal to 15-18% and represents 56% of the cases of couple infertility.

In contrast, a poor diet can lead to insidious health problems that can interfere with success in academic and social performance and may eventually mean confronting a serious long-term illness, such as heart disease or diabetes. Knowing how much and what to eat is important knowledge.

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