



The Role of Diet and disorder of weight in Infertility

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Introduction: Infertility is a common condition affecting as many as 1 of every 6 couples during their reproductive lifetime and approximately 10 to 15% of couples are impacted by infertility. Although assisted reproductive technologies are available to treat infertility, their large costs too make it important to consider alternative approaches. Thus, the identification of modifiable risk factors for infertility is important. How nutritional factors might influence fertility is largely an unexplored field. Although there is a substantial body of literature documenting how fertility is affected by underweight and excess weight, very little is known about how dietary composition influences fertility.

Materials and methods: This review article has been extracted from 26 article that has indexed in most valid scientific cites that has published from year 2009 to 2015.

Content: For women, being underweight and having extremely low amounts of body fat are associated with ovarian dysfunction and infertility. It was found that underweight women had an increased risk of pre-term birth. Eating disorders such as anorexia nervosa are also associated with extremely low BMI. The lifetime prevalence of anorexia nervosa in women is 0.9% with the average age of onset being 19 years old. Although relatively uncommon eating disorders can negatively affect men's fertility, and maternal and fetal well-being. It was found that among infertile women suffering from amenorrhea or oligomenorrhea due to eating disorders, 58% had menstrual irregularities. Directly leading to an increased risk of spontaneous abortion, reduced ovulatory responsiveness to hyperstimulation and poor outcomes in infertility treatment.

Higher carbohydrate intake at baseline was associated with a generally healthy lifestyle. Women who consumed more carbohydrates, also consumed less fat, animal protein, alcohol and coffee while consuming more protein from vegetable sources, fiber and multivitamins. These women were also less likely to be smokers, weighed less and were more physically active than women with lower carbohydrate intake. On the other hand, while women with a high glycemic index diet also consumed less.

2% increase in the intake of energy from trans unsaturated fats, as opposed to that from carbohydrates, was associated with a 73% greater risk of ovulatory infertility after adjustment for known and suspected risk factors for this. Obtaining 2% of energy intake from trans fats rather than from n6 polyunsaturated fats was associated with a similar increase in the risk of ovulatory infertility. In addition, obtaining 2% of energy from trans fats rather than from monounsaturated fats was associated with a more than doubled risk of ovulatory infertility.

Consuming 5% of total energy intake as animal protein instead of carbohydrates was associated with 19% greater risk of ovulatory infertility. In contrast, consuming 5% of energy as vegetable protein rather than carbohydrates was associated with a 43% lower risk of ovulatory infertility.

Results: Many studies have clearly demonstrated the benefits of short- or long-term diets, including improved pregnancy and ovulation rates, menstrual and metabolic abnormalities in overweight and obese women. In the last two decades, a positive role of dietary treatment in overweight and underweight populations with severe diseases has been established. However, the lack of apparent benefit suggests that the dietary regime or duration of the diet should be selected cautiously before treatment in overweight and underweight women.