



The Relationship between Early Pregnancy Cravings, Dietary Intake and Fetal Development

Grzegorz Jakiel*, Moron Gabriel, Astrick Pant

Department of Maternal and Child Health, Poznan University of Medical Sciences, Polna 33, 60-535 Poznan, Poland

ABSTRACT

Early pregnancy cravings and dietary intake can have a significant impact on fetal development. Proper nutrition during pregnancy is essential for the growth and development of the fetus, and cravings can sometimes indicate a need for specific nutrients. This article will discuss the relationship between early pregnancy cravings, dietary intake, and fetal development.

Keywords: Pregnancy; Women health; Nutrition; Fetal development

INTRODUCTION

Cravings and nutrient deficiencies

During the first trimester of pregnancy, many women experience cravings for certain foods. These cravings can range from sweet or salty to sour or spicy, and can be a result of hormonal changes or nutrient deficiencies. For example, a craving for ice cream could indicate a need for calcium, while a craving for salty snacks could be a sign of a sodium deficiency.

Dietary intake

A healthy diet during pregnancy should include a variety of foods from all food groups, including fruits, vegetables, whole grains, lean proteins, and healthy fats. Adequate intake of essential nutrients, such as folic acid, iron, calcium, and vitamin D, is critical for fetal development. A balanced diet can help prevent common pregnancy complications such as gestational diabetes, preeclampsia, and preterm labor.

Fetal development

The developing fetus relies on the mother's nutrient intake to support growth and development. Adequate intake of essential

nutrients during pregnancy can improve fetal outcomes, including a lower risk of neural tube defects, preterm birth, and low birth weight. On the other hand, inadequate nutrient intake during pregnancy can increase the risk of developmental problems, such as cognitive impairments and poor growth.

Recommendations

It is essential for pregnant women to maintain a healthy and balanced diet to support the needs of their growing fetus. This includes eating a variety of nutrient-dense foods and avoiding foods that are high in sugar, fat, and sodium. Pregnant women should also take prenatal vitamins as recommended by their healthcare provider to ensure adequate intake of essential nutrients.

LITERATURE REVIEW

Prevalence of early pregnancy cravings

Early pregnancy cravings are a common experience for many women. These cravings can range from sweet or salty to sour or spicy, and can sometimes indicate a need for specific nutrients. While the exact cause of these cravings is not yet

Received: 28-January-23

Manuscript No: IPGOCR-23-15915

Editor assigned: 30-January-23

PreQC No: IPGOCR-23-15915 (PQ)

Reviewed: 14-February-23

QC No: IPGOCR-23-15915 (Q)

Revised: 20-February-23

Manuscript No: IPGOCR-23-15915 (R)

Published: 27-February-23

DOI: 10.36648/2471-8165.9.2.9

Corresponding author: Grzegorz Jakiel, Department of Maternal and Child Health, Poznan University of Medical Sciences, Polna 33, 60-535 Poznan, Poland; E-mail: jakiel@hotmail.com

Citation: Jakiel G, Gabriel M, Pant A (2023) The Relationship between Early Pregnancy Cravings, Dietary Intake and Fetal Development. Gynecol Obstet Case Rep. Vol.9 No.2:9.

Copyright: © Jakiel G, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

fully understood, hormonal changes and nutrient deficiencies are believed to play a role. This article will provide an in-depth look at early pregnancy cravings, including their prevalence, causes, and how to manage them. Early pregnancy cravings are a common experience for many women, with up to 90% of pregnant women reporting cravings at some point during their pregnancy. These cravings often begin in the first trimester, and may continue throughout the pregnancy. The most commonly reported cravings include sweets, salty snacks, and spicy foods [1,2].

The exact cause of early pregnancy cravings is not yet fully understood. However, hormonal changes and nutrient deficiencies are believed to play a role. During pregnancy, the body undergoes significant hormonal changes that can affect appetite and food preferences. The hormone progesterone, for example, can increase appetite and lead to cravings for high-fat or high-sugar foods.

Nutrient deficiencies can also contribute to early pregnancy cravings. Pregnant women require additional nutrients to support the growth and development of the fetus. For example, a craving for ice cream could indicate a need for calcium, while a craving for red meat could be a sign of an iron deficiency. While early pregnancy cravings can be challenging to manage, there are several strategies that can help. These are includes:

Eating a balanced diet: Eating a balanced diet that includes a variety of nutrient-dense foods can help reduce cravings and ensure adequate nutrient intake during pregnancy. Pregnant women should aim to eat a variety of fruits, vegetables, whole grains, lean proteins, and healthy fats.

Drinking plenty of fluids: Staying hydrated can help reduce cravings and prevent dehydration, which can cause fatigue and headaches. Pregnant women should aim to drink at least eight cups of water per day.

Snacking on healthy options: Choosing healthy snacks, such as fruits, vegetables, and whole grains, can help satisfy cravings and provide important nutrients. It is important to avoid high-sugar and high-fat snacks, which can contribute to weight gain and other pregnancy complications.

Seeking support: Talking to a healthcare provider or a registered dietitian can provide additional guidance on managing early pregnancy cravings. They can help identify nutrient deficiencies and provide recommendations for healthy food choices.

Risks of early pregnancy cravings: While early pregnancy cravings are a common experience, they can sometimes lead to unhealthy eating habits and weight gain. Excessive weight gain during pregnancy can increase the risk of gestational diabetes, preeclampsia, and preterm labor. Pregnant women should aim to gain a healthy amount of weight during pregnancy, based on their pre-pregnancy body mass index (BMI).

DISCUSSION

Additionally, some women may experience cravings for non-food items, such as dirt or clay. This condition, known as pica, can lead to nutrient deficiencies and other health

complications. Pregnant women who experience pica should talk to their healthcare provider for guidance on how to manage this condition. Early pregnancy cravings are a common experience for many women, and can sometimes indicate a need for specific nutrients. While the exact cause of these cravings is not yet fully understood, hormonal changes and nutrient deficiencies are believed to play a role. Managing early pregnancy cravings can be challenging, but eating a balanced diet, staying hydrated, and seeking support can help. Pregnant women should aim to gain a healthy amount of weight during pregnancy and avoid unhealthy eating habits that can lead to pregnancy complications.

Dietary intake in early pregnancy is an important aspect of prenatal care. The nutritional needs of a woman during pregnancy increase significantly, as the growing fetus requires a variety of nutrients for optimal development. Adequate nutrition during the early stages of pregnancy is particularly critical, as this is when the fetus is most vulnerable to developmental issues. This article will provide an in-depth look at dietary intake during early pregnancy, including recommended nutrients, sources, and how to ensure adequate intake [3-5].

Recommended nutrients

Pregnant women require additional nutrients to support the growth and development of the fetus. The following are some of the most important nutrients to consider [6,7]:

Folate: Adequate folate intake is critical during early pregnancy, as it helps reduce the risk of neural tube defects. Pregnant women should aim to consume 600-800 micrograms of folate per day through foods such as leafy green vegetables, citrus fruits, and fortified grains.

Iron: Iron is essential for the production of red blood cells, which transport oxygen throughout the body. Pregnant women require more iron to support the growth of the fetus and placenta. The recommended daily intake of iron during pregnancy is 27 milligrams. Good dietary sources of iron include red meat, poultry, fish, beans, and fortified cereals.

Calcium: Calcium is necessary for the development of strong bones and teeth. Pregnant women should aim to consume 1000 milligrams of calcium per day through foods such as dairy products, leafy greens, and fortified orange juice.

Vitamin D: Vitamin D is critical for the absorption of calcium and the development of strong bones. Pregnant women should aim to consume 600-800 international units (IU) of vitamin D per day through foods such as fatty fish and fortified dairy products.

Sources of nutrients

Incorporating a variety of nutrient-dense foods into the diet is the best way to ensure adequate intake during early pregnancy. The following are some examples of foods that are rich in essential nutrients [8]:

Fruits and vegetables: Fruits and vegetables are excellent sources of vitamins, minerals, and fiber. Pregnant women

should aim to consume a variety of colorful fruits and vegetables each day.

Lean proteins: Lean proteins, such as chicken, fish, beans, and tofu, are rich in iron, protein, and other essential nutrients.

Whole grains: Whole grains, such as brown rice, quinoa, and whole wheat bread, are high in fiber and provide important vitamins and minerals.

Dairy Products: Dairy products, such as milk, cheese, and yogurt, are excellent sources of calcium and protein.

Ensuring adequate intake

Ensuring adequate nutrient intake during early pregnancy can be challenging, as some women may experience nausea or food aversions that make it difficult to consume certain foods. Eating small, frequent meals throughout the day can help manage nausea and ensure adequate nutrient intake. Prenatal vitamins are specifically designed to meet the increased nutritional needs of pregnant women. Taking a prenatal vitamin can help ensure adequate intake of essential nutrients. Pregnant women should try to incorporate a variety of foods into their diet, even if they are experiencing food aversions. Experimenting with different flavors and textures can help find foods that are tolerable. Talking to a healthcare provider or a registered dietitian can provide additional guidance on how to ensure adequate nutrient intake during early pregnancy. Early pregnancy development is a crucial time for the growth and development of the fetus. From conception to the end of the first trimester, a lot happens in terms of fetal development. This article will provide an in-depth look at early pregnancy development, including the different stages of fetal growth and important milestones. Conception occurs when a sperm cell fertilizes an egg in the fallopian tube. After fertilization, the fertilized egg, or zygote, begins to travel down the fallopian tube towards the uterus. Once the zygote reaches the uterus, it begins to implant into the lining of the uterus. This process typically occurs 6-10 days after fertilization. The embryonic stage begins at implantation and lasts until the end of the 8th week of pregnancy. During this time, the fertilized egg begins to divide and differentiate into different cell types. The embryo begins to develop the basic structures of the body, such as the brain, spinal cord, and heart [9].

The neural tube is the precursor to the brain and spinal cord. It forms around day 21 of pregnancy. The heart begins to beat around day 22 of pregnancy. The limb buds, which will eventually develop into arms and legs, begin to form around day 28 of pregnancy. Development of the major organs: The major organs, such as the lungs, liver, and kidneys, begin to form around week 4-5 of pregnancy. The fetal stage begins at the end of the 8th week of pregnancy and lasts until birth. During this time, the fetus continues to grow and develop, and many of the major organ systems become more fully developed [10]. Development of the nervous system: The brain and nervous system continue to develop and become more complex. The

lungs begin to develop and produce surfactant, a substance that helps the lungs expand and contract. The digestive system begins to develop, and the fetus begins to swallow and digest amniotic fluid. The bones begin to ossify and become denser; the fetus begins to develop external features such as eyelashes, eyebrows, and fingernails.

CONCLUSION

Early pregnancy cravings and dietary intake can have a significant impact on fetal development. Proper nutrition during pregnancy is essential for the growth and development of the fetus, and cravings can sometimes indicate a need for specific nutrients. A balanced diet and adequate nutrient intake during pregnancy can improve fetal outcomes and reduce the risk of developmental problems. Healthcare providers should educate pregnant women on the importance of proper nutrition during pregnancy and provide guidance on healthy eating habits.

ACKNOWLEDGEMENTS

Not applicable.

CONFLICT OF INTEREST

The author has no conflicts of interest to declare.

REFERENCES

1. Crystal SR, Bowen DJ, Bernstein IL (1999) Morning sickness and salt intake, food cravings, and food aversions. *Physiol Behav* 67(2):181-187.
2. Leeners B, Damaso F, Ochsenein-Kölbl N, Farquhar C (2018) The effect of pregnancy on endometriosis—facts or fiction? *Hum Reprod Update* 24(3): 290-299.
3. Nazareth SB, Lizarin GA, Goldberg JD (2015) Changing trends in carrier screening for genetic disease in the United States. *Prenat Diagn* 35(10): 931-935.
4. Roman H (2018) Endometriosis surgery and preservation of fertility, what surgeons should know. *J Visc Surg* 155: S31-S36.
5. Martines J, Paul VK, Bhutta ZA, Koblinsky M, Soucat A, et al. (2005) Neonatal survival: A call for action. *Lancet* 365(9465): 1189-1197.
6. Kadir RA, Davies J, Winikoff R, Pollard D, Peyvandi F, et al. (2013) Pregnancy complications and obstetric care in women with inherited bleeding disorders. *Haemophilia* 19(4): 1-0.
7. Giammarile F, Bozkurt MF, Cibula D, Pahisa J, Oyen WJ, et al. (2014) The EANM clinical and technical guidelines for lymphoscintigraphy and sentinel node localization in gynaecological cancers. *Eur J Nucl Med Mol Imaging* 41(7): 1463-1477.
8. Moos MK, Cefalo RC (1987) Preconceptional health promotion: A focus for obstetric care. *Am J Perinatol* 4(1): 63-67.
9. Chetty S, Norton ME (2017) Obstetric care in women with genetic disorders. *Best Pract Res Clin Obstet Gynaecol* 42: 86-99.
10. Motoshima S, Irie H, Nakazono T, Kamura T, Kudo S (2011) Diffusion-weighted MR imaging in gynecologic cancers. *J Gynecol Oncol* 22(4): 275-287.