

Nutrition in Pregnancy

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“Weight gain
recommendations are based
on BMI at the start of
pregnancy”



Transcribed directly from MOGCAST Episode 4. Listen here:

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“Hello, my name is Dr Alyce Wilson. I'm a public health registrar and senior research fellow at the Burnet Institute. I also continue to work at the Royal Women's Hospital and have an honorary role in the Department of Obstetrics and Gynaecology at the University of Melbourne.

And today I'm honored to talk to you briefly about nutrition during pregnancy and some of the key considerations. So, obviously, good nutrition during pregnancy is really important for both the mother and baby and there are certain nutrients in particular that do increase when women are pregnant.

I first want to talk to you about weight gain. This is often something that women will be conscious of and so it's very normal for women to gain weight during pregnancy. This is the increased blood volume, the placenta, the baby growing, as well as fat stores, but it's important that women don't gain too much weight and excess weight gain during pregnancy can increase the risk of a number of different conditions such as gestational diabetes.

So generally the weight gain recommendations are based on the woman's BMI at the start of pregnancy. So for women that are underweight, so a BMI of less than 18.5, their recommended weight gain during pregnancy is 12.5 to 18 kilos. For women that have a healthy weight, so between a BMI of between 18.5 to 24.9, their recommended weight gain during pregnancy is around 11.5 to 16 kilos. And for women that would be considered overweight, so that's a BMI of 25 to 30, then their recommended weight gain is much less, so between 7 to 11.5.

It's really important that for women that may be overweight or obese at the start of pregnancy, they don't use pregnancy as a time to try dieting or trying to lose weight as this can result in nutritional deficiencies. And so it's really important that weight gain is minimized for overweight and obese women, but it's not a time to recommend any diets or any restrictive changes to diets.

So in terms of healthy eating for women, this is based on, in Australia, the Australian Dietary Guidelines, which are developed by the National Health and Medical Research Council.

And so, the Australian Dietary Guidelines recommend that women, just like the rest of the Australian population, enjoy a wide variety of fruit and vegetables, that they have sufficient intake of whole grain breads and cereals. that they choose foods which are high in iron, and this can either be meat options or meat alternatives, as well as ensuring adequate intake of dairy products and drinking plenty of water.

In a healthy diet, it's important to limit the intake of processed foods, so foods which are high in fat, sugar, and salt, and low in fibre, often known as junk foods. So the Australian Dietary Guidelines actually recommend for each food group, a different number of servings that women should have each day. And so these are broken down depending into different food groups, such as fruit, vegetables, grains, lean meats and meat alternatives like eggs, tofu, nuts, seeds, and legumes and beans, as well as dairy products like milk, yogurt, and cheese. And so there's a number of, a serving size is defined in the dietary guidelines and then there's recommendations for how many serves a woman needs during pregnancy to meet her nutritional requirements. For example, a serve of fruit, would be like a medium piece of fruit, such as an apple, banana, or orange, or two small pieces of fruit, such as apricots, kiwi, fruit, or plums.

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And so, in pregnancy it's recommended that women have two serves of these a day. With regards to vegetables, a half a cup of cooked vegetables or a cup of salad is considered a serve. And so for women it's recommended that they have around five serves of vegetables a day during pregnancy to meet their nutritional requirements. And you can look at the Australian Dietary Guidelines to look at the breakdown for the other different food groups.

In terms of nutrients that are really important to be aware of during pregnancy, folate, is a B group vitamin which is really important for protecting against neural tube defects in the developing baby. And so it's important that women receive enough folate, both during the preconception period, so the three months before they conceive, as well as during the first trimester. And so women that are trying to plan a family or wanting to start a family, it's recommended they start a folic acid supplement. Although it's important to note that there is folate in a number of different foods, in our diets as well as a number of foods are fortified with folate in Australia, such as breads and cereals. So some excellent food sources of folate include asparagus, bran flakes, broccoli, brussels sprouts, chickpeas, beans and lentils and spinach.

Iron is another really important nutrient for women during pregnancy and so worldwide iron deficiency particularly for women of reproductive age continues to be a major issue. Around 30 percent of women of reproductive age worldwide are iron deficient. Iron losses are reduced during pregnancy because the women's no longer menstruating but this is not enough to offset the increased needs for the developing baby.

And so it's really important that women choose iron rich food. which may include meat or chicken or seafood or dried beans and lentils, as well as green leafy vegetables. Increasing the absorption of iron can occur through eating foods which are high in vitamin C, such as oranges or capsicum. And this is particularly important for women that follow a vegetarian or vegan diet to increase this absorption as plant-based sources of iron are not as readily absorbed as meat-based options.

Iodine is another important mineral which is necessary for the production of thyroid hormones and it's important for overall growth and development of the baby. It's one of the things tested for on the newborn, heel-prick test. So, as part of this newborn screening program, they screen for congenital hypothyroidism, which can result from a lack of iodine during pregnancy. So foods that are a good source of iodine include seafood and seaweed, eggs, meat and dairy products. We also have iodized salt in Australia, which is salt which has been fortified with iodine. And this can be used at the table or in cooking, to also ensure adequate iodine intake. In Australia, similarly to folate, we also have iodine fortified in a number of different products such as such as bread to also ensure that at a population level there's sufficient iodine intake.

Vitamin D, is another important vitamin during pregnancy. And so we get most of our vitamin D from the sun. It's made through a process which I'm sure you've covered in other lectures. There is also a small amount from some foods in the diet, such as eggs, oily fish, margarine, and milks that have been fortified with vitamin D. So there are some women in the population that are at increased risk of vitamin D deficiency, and these can be women who have quite dark coloured skin, wear coverings or concealing clothing, such as women that may wear burqas or hijabs or women that spend a lot of time indoors, so they can also be at risk of vitamin D deficiency.

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And so as part of a general screening during first trimester, often nutrient levels will be checked by their doctor. And this can be an important time to determine whether there's any supplements that are needed. There is no need for extra calcium during pregnancy, although previous dietary recommendations did advise increased calcium intake, but given that during pregnancy the woman has an increased capacity to absorb calcium which is sufficient to meet the needs of the baby, particularly during the third trimester as the baby starts to develop and strengthen its bones.

So, there are lots of different nutrition related issues that can occur during pregnancy, such as constipation, and so this is important to provide recommendations around foods that are high in fibre, as well as drinking plenty of water, and being physically active to help reduce constipation. And so foods that are high in fibre include vegetables, legumes, beans, fruit, and whole grains.

Another issue during pregnancy can be morning sickness and particularly during the first trimester. And there can be some dietary strategies that can be used to help decrease or minimize the discomfort caused by morning sickness. So, this can include things like dry bread or biscuits in the morning, avoiding having drinks with meals, but drinking in between meals, avoiding large meals or high greasy, spicy foods. As well as things like lemon and ginger beer can also be things that can help. Sometimes ginger tea etc. as well.

Another issue that can occur quite commonly in pregnancy, particularly as the pregnancy progresses, is heartburn. And this is because of that increased pressure in the abdomen, and the pyloric sphincter. Some of the ways to reduce heartburn in pregnancy can be avoiding certain foods such as tea and coffee or limiting consumption. Avoiding eating large meals or trying to eat smaller meals, or if people lie down too soon after a meal and so forth, can also increase heartburn.

In terms of alcohol, so the Australian National Health and Medical Research Council guidelines recommend that there's no safe level for alcohol consumption during pregnancy. It can increase the risk of miscarriage, low birth weight, congenital deformities such as fetal alcohol spectrum disorder and other issues. So it's really important that women don't drink alcohol at all during pregnancy.

Another thing to be aware of during pregnancy is listeria infection or listeriosis. So, this is an illness which is caused by eating food contaminated with a bacteria known as listeria monocytogenes. Generally, healthy people in the population don't experience any ill effects from listeria, but there is an increased risk for women due to that immunosuppressed state which occurs during pregnancy. If women contract a listeria infection during pregnancy, there can be an increased risk of miscarriage, stillbirth, or premature labour. So there are certain foods that women are recommended to avoid during pregnancy to reduce their risk of eating food contaminated with listeria, which includes soft cheeses, any precooked or pre-prepared cold foods that are not heated, such as delicatessen meats like ham and salami or salads or quiches, any undercooked meat or, pate and so forth is not recommended.

Raw seafood, such as oysters or sashimi, any unpasteurized foods like unpasteurized milk as well as soft serve ice cream. So it's really important that generally women avoid these foods or they can also be things like salami and ham can be eaten if they're cooked to high temperatures and so forth on pizza it's okay.

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So another way to really reduce any risk of food born infections or gastroenteritis during pregnancy is also of course following good hygiene around washing hands before and after preparing food, going to the toilet and so forth.

Another thing to be aware of is mercury. So although the Australian Dietary Guidelines do recommend fish as a really good source of nutrition for women during pregnancy, there can be certain fish in the diet which have high levels of mercury, which can be harmful to the baby.

And so there's recommendations around which types of fish have high levels of mercury and to limit intake of those. And there's different recommendations for a fortnight and for a week depending on the different types of fish that women consume.

So that's a very quick snapshot of some of the nutritional considerations during pregnancy and I hope you enjoyed it. Thank you."