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Vitamin A & Pregnancy – The Facts

It is a Therapeutic Goods Administration (TGA) requirement that manufacturers of any supplement containing Vitamin A also include a warning on the label of the dangers of high/very high levels of Vitamin A in pregnancy. This is also true of other nutrients like Vitamin B6 and Zinc aimed at the general population, not just pregnant women. Currently it is stated that amounts over 8,000 I.U (international units) of vitamin A may cause birth defects.

This warning can often raise anxiety in women considering becoming pregnant or currently pregnant. The purpose of this information sheet is to inform you of the role, the safe and the toxic levels of Vitamin A – from food and/or supplements – during pregnancy.

Why do we need Vitamin A?

Vitamin A is important for the integrity of all mucous membranes – the linings of the mouth, vagina and intestines are kept healthy in the presence of vitamin A, so this is an important nutrient for both the mother and the baby.

A deficiency of this nutrient can lead to breakdown of these membranes and invasion of the surfaces by infectious organisms such as thrush. Vitamin A is also essential for healthy eyes, skin, hair and teeth and for good bone structure. The formation of both red and white blood cells depends on vitamin A, as does the formation of all hormones involved in reproduction and lactation. If vitamin A is deficient; there may be appetite loss and poor digestion, which will lead to further deficiencies.

Vitamin A is also important for thyroid function. During pregnancy there is a huge metabolic demand on the mother's thyroid gland. The mother must produce thyroid hormones for herself and the baby until its own thyroid gland is mature enough to produce its own (around 12wks). Lack of nutritional support for the thyroid gland (which also needs iodine, zinc and selenium) during pregnancy can result in an subclinical or overt underactive thyroid gland (hypothyroidism) after the baby is born.

What can happen if we don't have enough?

Vitamin A deficiency in the unborn baby can result in eye defects of all sorts, including the complete absence of eyes. Hydrocephalus, heart defects, defects of genito-urinary system, hernia of the diaphragm, deformed penis and undescended testicles are other conditions which have been linked to vitamin A deficiency.

What can happen if we have too much?

It is now widely recognised that too much vitamin A during pregnancy can be teratogenic (able to cause birth defects). In other words, vitamin A in high doses can lead to birth defects. The Orthoplex Report, October 1993, states that a review of the literature reveals a total of 18 affected pregnancies where the mother took 25,000 – 500,000 IU daily. More recent research by Rothman et al. at Boston University shows vitamin A may pose a danger when the woman takes more than 10,000 IU per day.

While there is no doubt that reports exist of teratogenicity, it is important that you do not want to avoid modest amounts of vitamin A, because there are probably more incidence of congenital abnormalities due to a deficiency than there are incidences of teratogenic effects from an excess.

Studies around the world have supplemented pregnant women with 6,000 IU of vitamin A per day, and have demonstrated a lowering incidence of birth defects. Dr. Weston Price actually

referred to the fat-soluble vitamins as 'catalysts' or 'activators' upon which the assimilation of all other nutrients depended. Most naturopaths and nutritionists consider 10,000 IU daily to be perfectly safe, but also recommend that you do not exceed this dose. To be extra confident you may prefer to take the equivalent dose of beta-carotene (6mg), which is entirely non-toxic, and which your body will convert to vitamin A as required. The latest research indicates that 'mixed carotenes', which occur in natural sources, may be the preferred approach to supplementation.

What foods contain Vitamin A?

The dietary sources of Vitamin A include eggs, whole milk, butter, meat, animal liver and fish liver oils. eg cod and halibut (the liver stores retinol – vitamin A).

It is generally not recommended that pregnant women consume animal livers due to the very high level of vitamin A. The liver is also major detoxification organ of the body and unless the animal was raised within an organic farm I wouldn't recommend animal livers be consumed by anyone. If taking cod or halibut liver oil capsules I would check the amount of vitamin A each dose provides.

Should I avoid taking supplements with Vitamin A?

It is wise to be aware of how much vitamin A you maybe receiving within your pre-pregnancy or pregnancy supplements. Remember the warning states amounts of 8,000 I.U per day *may* cause birth defects, but most supplements have 1,250 or 2,500 in them as a single dose. Check *all* of your supplements and add up your daily vitamin A supplemented dose and have a look at your dietary intake. If unsure talk to me and we can work it out together. As a naturopathic and nutritionist specialising in fertility and pregnancy care, I have regularly and confidently prescribed women doses of up to 10,000 I.U per day before and during pregnancy.

References available.