Obesity and reproduction – a fact file

What is the obesity?

Body mass index (BMI) is a measure of the relationship between a person’s height and weight. A healthy BMI for adults is between 20 and 25 kg/m². A BMI between 25–29.9 kg/m² is classified as overweight and BMIs of 30 kg/m² and over as obese (1). It is estimated that 45% of Australian women of reproductive age are overweight or obese (2).

The last few decades have seen an increase in the number of people who struggle with their weight. Most of us know that being overweight or obese increases our risk of some health problems. But many are unaware that this also reduces fertility and the chance of having a healthy baby.

Why are some people obese?

Many factors contribute to obesity including family history, eating habits, and levels of physical activity. The increasing consumption of processed food, fast food and sugary drinks in today’s society also has a lot to answer for.

People who are overweight or obese often feel bad about this and in part this is due to the stigma attached to obesity (3). Feeling judged, stigmatized, discriminated against or pressured by others can cause behavior change that lead to further weight gain (4).

How can people lose weight?

There is no silver bullet for weight loss but some of necessary ingredients for achieving sustained weight loss include: an environment where health professionals and family and friends provide encouragement and support rather than blaming and shaming; achievable weight loss goals and a realistic time frame to reach those goals; knowledge about nutrition and healthy eating; access to fresh food; and means to increase levels of physical activity.

Giving baby a healthy start to life

Studies show that the health of a baby at birth and into adulthood is affected by the health of the parents even before conception (5). While common wisdom used to be that the genes from an egg and a sperm make a baby, we now know that the environment in which the egg and sperm develop also influences the baby’s health at birth and into adulthood. One of the things that contribute to a less favourable environment for eggs and sperm is obesity. So, getting into shape and striving to be in the healthy weight range before conception will significantly improve the odds of having a healthy baby.

Obesity and fertility

Obesity can cause hormonal changes that interfere with ovulation and reduce a woman’s fertility. As a result obese women:

- take longer, on average, to conceive than women in the healthy weight range and
- are more likely to experience infertility (6).
In men obesity can lower testosterone levels, causing erectile problems and lower fertility (7).

Among infertile couples who use assisted reproductive technology (ART) to conceive:

- female and male obesity reduce their chance of achieving a pregnancy (8, 9)
- the risk of miscarriage is higher and the live birth rate is significantly lower for overweight and obese than for normal-weight woman (10, 11).

**Obesity and pregnancy**

Being overweight or obese affects a woman’s health during pregnancy negatively. Compared with women in the healthy weight range, overweight and obese women are more likely to:

- develop high blood pressure and diabetes during pregnancy
- have induced labour and
- be delivered by caesarean section (12, 13).

**Obesity and the new baby**

Maternal obesity increases the risks of adverse outcomes for the baby. Overweight and obese women are more likely than women in the healthy weight range to:

- experience miscarriage
- have a stillbirth (14)
- have a baby weighing more than 4.5 kilograms at birth (macrosomia) (15)
- have a caesarean section to avoid birth complications which are more common with large babies (16).

**The good news**

While the facts about obesity and reproductive outcomes can seem daunting, there is some good news too. In obese women, even a modest weight loss of around 10% improves fertility and the chance of conceiving (17, 18). Also, some dietary and lifestyle interventions that limit pregnancy weight gain can improve outcomes for both mother and baby (19).

Go to www.yourfertility.org.au for more information about obesity and how to improve the chance of having a healthy baby
References


