

## Obesity and Women's Health

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In the last half century obesity has become an epidemic within the developed world, where it is estimated that over 1.5 billion adults are overweight. Nearly 300 million women are now thought to be clinically obese. Being too fat (adiposity) causes significant health problems not only for individuals but also for families and communities who have to bear the cost of managing the associated medical conditions, often utilising a major portion of the total health budget (WHO, 2014). Adiposity has particular consequences for women and for reproductive health.

Obesity in women is associated with alterations in the reproductive cycle with a reduction in fertility, as well as an increased risk of polycystic ovarian syndrome (PCOS) and infrequent or no ovulation. Overweight women with PCOS have a tendency towards insulin resistance and are prone to developing diabetes, particularly in later life. All these issues make the treatment of infertility more complicated and less successful (Sam, 2007). Furthermore the tendency toward menstrual and ovarian disturbances associated with obesity may predispose to an increased risk of ovarian, breast and endometrial cancer. In fact it is now clear the incidence of all gynaecological cancer increases with increasing BMI (Bhaskaran et al., 2014).

Maternal obesity during pregnancy is also fraught with risks to both the mother and baby. Adverse maternal outcomes associated with obesity include an increased risk of spontaneous miscarriage, gestational diabetes, hypertensive disease of pregnancy including gestational proteinuric hypertension with multi-system consequences (Guelinckx et al., 2008). Pregnancy is more likely to be prolonged, while labour is more likely to be difficult requiring operative delivery which brings increased risk of infection, thrombo-embolism, and debilitation (Aviram et al., 2011). Adverse foetal

outcomes associated with maternal adiposity include problems arising from iatrogenic prematurity, macrosomia (big babies) and associated birth trauma especially resulting from shoulder dystocia. Big babies have themselves a predisposition to adiposity and metabolic disorders in childhood and later life. Maternal obesity also confers an elevated risk of congenital abnormalities, particularly congenital heart disease and neural tube defects. The obese woman is also less likely to succeed in breastfeeding, requiring resort to artificial feeding which in itself increases the risk of childhood obesity.

Thus maternal obesity has been shown to have significant short and long term consequences for both mother and child and it is now clear that timely lifestyle interventions introduced before becoming pregnant and maintained throughout pregnancy may help to mitigate complications in both. By improving the intrauterine nutritional milieu of the developing foetus, it may be possible to improve the child's general health and thereby reduce the risk in later life of health problems associated with obesity, including circulatory and respiratory disease as well as mental health (O'Reilly and Reynolds, 2013).

EBCOG therefore supports any public health intervention that addresses this emerging public health issue and particularly those measures aimed at education and prevention. The obstetrician is very well placed in the health service structure to contribute. All providers of maternity care and women's health services should have advice available for all women and particularly those planning pregnancy. Lifestyle advice, particularly on dietary habits and physical activity, should be available particularly to all overweight and obese women. The importance of these issues for the health of the next generation needs particular emphasis.

## References

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