

# does exercise matter?

ONE IN FIVE WOMEN ATTENDING PRENATAL CARE IN THE UK IS OBESE. HOW'S THAT FOR A SOBERING STATISTIC?

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**P**regnancy has been demonstrated to be a significant motivator: women will quit smoking, stop drinking... but should they start exercising? Your answer should be a resounding YES. Even better, have your clients start their exercise programme before they become pregnant.

## exercise and preconception, is there an impact on fertility?

In December 2007, Dr Adam Balen et al from Leeds Teaching Hospital published an article in *Human Fertility* which looked at the impact of obesity on female reproductive health.

Overweight is defined as any woman who has a BMI of greater than 25.<sup>1</sup> It is further defined as pre-obesity (25-29.9 BMI), obesity (30-34.9 BMI), severe obesity (35-39.9 BMI) or morbid obesity (BMI greater than 40). In addition to BMI, the amount of abdominal fat is important (the greater the abdominal circumference, the more abdominal fat present).

Research has found that the rate of miscarriage increases in women who weigh more at the time of conception. This was found if the women conceived naturally or via IVF.<sup>2</sup> There is a theory that this may be due to the woman being "insulin resistant" – in other words, she is less sensitive to the insulin that her body produces. This can be associated with "PCOS" or polycystic ovarian disease, another cause of infertility.

The chance of success with IVF treatments has also been found to be in part determined by the woman's weight at the time of treatment. In New Zealand there is a movement to restrict assisted reproduction treatments to those women whose BMI is more than 32. This decision is based on the risks of the treatment to the woman and her offspring (Farquhar 2006). The study found that higher doses of hormones can be required to achieve pregnancy in the women with higher BMIs, increasing the risk to both the mother and baby.

In Britain, there is a kinder approach.<sup>1</sup> The British Fertility Society recognises that weight issues are sensitive ones, but recommends that women should aim for a normal BMI before starting treatment for infertility. Ideally, the BMI should be less than 35, but in younger women, a BMI of less than 30 is preferable. The difference is due to the fact that, in theory, younger women have

a longer amount of time available to conceive, so aggressive weight management has more time to work.

What does this all mean to you, the exercise specialist? The answer should be obvious. If we know that the best way to lose weight is by a combination of diet and exercise, and that a woman is most motivated for lifestyle changes prior to conception or when she is pregnant, get her exercising! It is also one of your only opportunities to change a behaviour that may impact future generations.

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## exercise and pregnancy

Research has demonstrated over and over again that exercise during a normal pregnancy is safe, but can it also be beneficial?

The short answer is yes. We already know that exercise during pregnancy can reduce the incidence of pregnancy-induced high blood pressure and diabetes in the mother-to-be.

Some current research suggests that it may even go further in helping maintain the good health of the mother and her baby.

For every unit increase in pre-pregnancy BMI, there is an 8% increased risk of pregnancy-induced hypertension, but what happens when they are already pregnant? Ideally it is more beneficial to lower BMI prior to conception, but exercise during pregnancy (regular aerobic exercise on most if not all days of the week (ACOG 2002)) can lower the incidence of both gestational diabetes and pregnancy-induced hypertension in the pregnant woman.

There is, however, one more thing to consider: obese women tend to have more pregnancy-related complications, and as a result cost the healthcare system more money. Clearly, this is a good reason for more hospitals to get on to the preconception and prenatal exercise bandwagon.

The risk of mum and baby complications during pregnancy increases the more overweight the woman, both at the time of conception and delivery. There is direct correlation between the mother's BMI and her risk for caesarean section, either elective or emergency (Graves 2006). I have found this to be the case in my own practice. It appears to be a combination of several factors: larger babies, longer labour, a greater requirement for labour induction with pitocin, and foetal distress. This finding may be in part due to the increased incidence of gestational diabetes and high blood pressure in this population.

Some studies are also suggesting that if we reduce the maternal weight during pregnancy, we may also reduce the chances of her offspring developing heart disease and diabetes (Weissgerber 2006).<sup>1</sup> One could make a "nature vs nurture" argument for this. Is this because the infants of exercising mothers have been given an advantage at birth? Or are they simply more likely to exercise because their mother does? Or both? Does it matter?

Even if we ignore the above, you can still repeat the mantra "exercise improves your sense of well-being" to your client, pregnant or not.

### postnatal exercise

What if your client shows up for her very first exercise class after she has had her baby? Then you treat her in the same as any non-pregnant client.

You may advise her to delay her exercise programme until six weeks after delivery, and then start her on a low-intensity programme as you would any other beginner exerciser.

The two issues that may be unique to this population are the fact that she may be breastfeeding and at a higher risk for urinary incontinence.

The concerns about lactic acid production in breast milk after exercise have been unfounded. It is quite safe for a breastfeeding woman to exercise, providing she remains well hydrated.

Your client may start to complain about urinary incontinence, which may worsen during her exercise session. It is very important to include Kegel and pelvic floor exercises in the prenatal and postnatal woman.

### So what does this all mean?

If we accept that exercise during pregnancy is safe, and we have very motivated clients in the preconception and prenatal periods, then this is the perfect time for you to educate your clients. It is one of the few times that as a personal trainer you can make a significant impact on the health of your client, which may further impact future generations.<sup>1</sup> **fp**

### references

For a list of references and resources visit [www.fitpro.com/fitpro/references](http://www.fitpro.com/fitpro/references)



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