Preconception planning can address a number of fertility factors.

TO HAVE children is a life ambition for most people.1,2

For some, medical, social or other reasons beyond their personal control such as age, smoking or obesity, this may become less likely.3-5

However, for others, factors that in the past were amenable to change can reduce their chances of realising this goal.

There is consistent evidence that increasing maternal and paternal age adversely affects fertility and increases risks of pregnancy complications.6-8

Furthermore, evidence indicates that most people underestimate the influence of increasing female and male age on the chance of conceiving and having a healthy baby.9-11

As a result of access to reliable contraception and improved education and employment opportunities for women, the age of childbearing has increased.12

This in turn has lead to an increased rate of age-related infertility and to more couples seeking assisted reproductive technology (ART) treatment to conceive.13

Unfortunately, the belief that ART can help older women conceive is erroneous; the chance of having a baby with ART decreases with increasing maternal age, and after the age of 40 the chances are negligible.14 Increasing paternal age is also linked to lower ART success rate.15

Population data shows that rates of overweight (BMI ≥ 25) and obesity (BMI ≥ 30) are increasing in high-income countries.16,17

While most people are aware of the negative effects of obesity on general health, its adverse effects on fertility, obstetric outcomes and health of children are less well understood.18-20

Likewise, in response to sustained health promotion and public information campaigns, there is broad community awareness of many adverse health effects of smoking. Yet, the negative effects of male and female smoking on fertility may not be known.

Increased public awareness about factors affecting fertility is needed. This may help people make well-informed decisions about family formation; reduce the personal suffering of infertility and adverse obstetric outcomes; and reduce the healthcare costs of treating infertility, pregnancy and neonatal complications.

Health professionals play an important role in improving knowledge among women and men of the effects of age, overweight and smoking on the chance of having healthy children.

Key messages that healthcare professionals should share with their patients include:

AGE
Women’s fertility drops gradually starting at about age 32 and decreases more rapidly after age 38.19

• The quality of sperm decreases with age, and partners of men older than 45 take five times longer to conceive than partners of younger men.4

• The risk of miscarriage increases with age.14

• The risks of obstetric complications such as miscarriage, gestational diabetes, hypertension, caesarean section and prematurity increase.24-27

• The increased risks to the fetus include congenital abnormalities, high birth weight, stillbirth and perinatal death.16,24,26

• Infants of obese mothers have a greater risk of future childhood and adult obesity and all its associated health problems.28

OVERWEIGHT
Obesity can cause hormonal imbalances that lead to ovulatory dysfunction and infertility. Male obesity can reduce fertility by lowering testosterone levels and increasing the risk of erectile dysfunction.24,25

• Maternal smoking increases the risk of low birth weight and birth defects.25

• Smoking can damage sperm DNA. Heavy smoking by fathers at the time of conception increases the child’s risk of childhood leukaemia and shortens the reproductive life span of daughters.39,47

CONCLUSION
Health professionals in their care of women and men of reproductive age are in an ideal position to raise awareness about the importance of preconception planning and the effects of age and lifestyle factors on fertility and pregnancy outcomes. In addition to consultation with health professionals, patients can be directed to these evidence-based websites for further information:

• www.andrologyaustralia.org
• www.yourfertility.org.au
• www.betterhealth.vic.gov.au
• www.healthinsite.gov.au

References at medobs.com.au

Key Points
• Health professionals have an important role in raising awareness about factors affecting fertility and obstetric outcomes such as age, obesity and smoking.
• Equipped with factual information, people who have a choice about timing of childbearing can make informed decisions.
• For those who are planning to have children in the future, health professionals’ messages about the adverse effects of obesity and smoking should include their negative effect on fertility and obstetric outcomes.

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