



Dr Caitlin Dunne

## Infertility, Part 2: How old is “too old” to have a baby?

**B**ritish Columbia has the highest age of first birth in the country. The average age of a first-time mother in BC is 30.8 years, according to Statistics Canada, compared with 30.5 years in Ontario and 25.4 years in Nunavut.<sup>1</sup> In 1991 the average age of a Canadian first-time mother was less than 28 years.<sup>2</sup> This means that within one generation there has been a significant move toward delayed childbearing. In 2015 the BC Vital Statistics Agency noted that the proportion of first-time mothers age 35 to 39 had risen to over 20% in the last decade.<sup>3</sup> The evidence is clear—our patients are at risk of waiting too long to start their families.

A woman's age when she starts her family is, arguably, one of the most adjustable factors for improving both fertility and pregnancy outcomes. A woman is born with all of her eggs, and they degenerate with age. Internal mechanisms, such as the meiotic spindle and mitochondrial functions, break down with age, and she becomes more prone to infertility, miscarriage, and aneuploidy. Once pregnant, women older than 35 are also more susceptible to adverse outcomes such as preterm birth, preeclampsia, diabetes, and cesarean section.

Advances in reproductive technology are changing the age limits of motherhood. For many women, these developments provide opportunities

for motherhood that did not exist even 5 years ago. For health care providers, these technologies present novel challenges.

Egg freezing allows women to reduce some of the risks of delayed childbearing. By preserving eggs at their prime (ideally before age 34) women can create a backup plan in the event they have trouble conceiving later in life. Frozen donor eggs from the United States have been available since about 2013, and based on my clinical experience the use of donor eggs is growing in popularity. Whereas women in the past needed a friend or family member to altruistically donate eggs, now they can purchase eggs online from an increasing number of banks in the US and abroad. Autologous egg freezing and egg donation both make pregnancy possible even after menopause. In Canada, the upper age limit for treatment with frozen eggs is considered to be 50 years, while in the US it is 55 years.

The topic of older motherhood is rife with ethical and medical dilemmas. Weighing principles such as autonomy and beneficence against the risk of medical complications such as prematurity and stillbirth can lead to hours of debate. For now, we strive to consider each case on its own merits and make the best recommendation for the individual patient.

Many factors have contributed to delayed childbearing, including the pursuit of higher education, access to contraception, difficulty finding a

partner, and the success of in vitro fertilization. Physicians should encourage women to plan for their future fertility by talking to them about the negative effect of advancing age on reproduction and discussing their options.

In last month's theme issue we discussed why infertility patients deserve our attention, investigations for infertility, therapy for polycystic ovary syndrome, and fertility preservation for young cancer patients. In this month's theme issue we travel further along the reproductive pathway to consider complications in early pregnancy, and we offer practical reviews of prenatal screening options, preconception care for women with diabetes, and management of recurrent miscarriage.

—Caitlin Dunne, MD, FRCSC  
Co-Director at the Pacific Centre  
for Reproductive Medicine

### References

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