The "right time" to have children

This article is featured as part of the Genetic Literacy Project's weekly newsletter GeneTrends: Human.

In December, Judith Shulevitz, science editor for *The New Republic*, published <u>"The Grayest Generation:</u> <u>How Older Parenthood Will Upend American Society,"</u> an exhaustive cover story about how parents in the US are having children later in life. Shulevitz details the current and potential ramifications of this trend, including a host of medical concerns. As more children are born to older parents, increasing numbers of babies are at higher risk for a range of health problems, many with a genetic basis and possibly resulting from epigenetic changes—functional changes that are generated in the DNA as a product of longevity and environmental interactions.

Since the Shulevitz article came out, opinion writers (Meghan Daum, Katie Roiphe) have taken up the subject of parents who wait to have children. The discussion is not new: for example Elizabeth Gregory, director of the Women's, Gender, and Sexuality Studies Program at the University of Houston, in her 2007 book *Ready: Why Women Are Embracing the New Later Motherhood*, presents a largely positive perspective on late motherhood. Emerging from these discussions is the idea that parents are delaying childbirth in order to make darn sure that when they have a child, they are 100-percent ready: established in careers, homes, and romantic relationships. Getting all this "in place" sometimes can take people into their late thirties and early forties, the stage at which accidental pregnancies give way to fertility doctors and assisted reproductive technology (ART).

The careful planning involved in having a child using ART—as well as the planning that may cause parents to delay pregnancy in the first place—stands in contrast to the increased health risks, many of them genetically-based, to children born to older parents. Are parents trading carefully groomed and long-foreseen circumstances for the increased risks and uncertainties—of genetic disorders, such as Down syndrome, of multiple births, of premature births, of autism—that come with later pregnancies?

It's a tricky question because having a child at any age involves risk. Any baby of any parent, young or old, could be born with health problems. Yet as parents age, the risks of their children developing health problems increase and the likelihood that they will be born without them goes down. Parents who have children later in life are giving up not control over their child's health, which no parent ever has, but percentage points of possibility that their child will be born without notable medical problems.

Why do parents delay pregnancy? Often, it's an act of prudent planning; people delay in order to establish careers and homes before their child arrives. Earlier childbirth, a <u>study</u> by University of Virginia economist Amalia Miller shows, can be a lifelong financial setback; Miller found that women earn 9 percent more, over a lifetime, for every year that they delay pregnancy, both because the women who delay work longer hours and because they earn higher wages than those who had children earlier. To cast the setback in more personal terms, professional women, including Shulevitz, who waited to have children until they had established careers say that they wouldn't have been taken seriously if they had had children while those careers were developing. And at the early stages, an employee who works a bit less in order to care for a child can always be replaced, *de facto*, by another more devoted worker.

Parents who wait to have children until they have developed more professional clout, on the other hand, are less dispensable. They may also have more control over their schedules, more freedom to work at home or take time off—whether or not they call it parental leave.

The opinion writer Meghan Daum, writing for *The New Yorker*, brings up many of these issues in her discussion of the recent Judd Apatow movie "This Is Forty." Daum <u>marvels</u> at how the fictional parents, who have their fortieth birthdays in the movie, could have gotten so obviously rich given that they had their first child at 27. Daum moves into to discussion of real parents who, she suggests, would not start having children that young if they aspired to such sumptuous lifestyles. Instead, Daum suggests, parents would wait to better establish themselves before having their first, and she sees this preparation as an act of responsibility: "People are too future oriented, too worried about feathering the nest before filling it, too damn responsible to have a baby while they're still in school and using ironing boards as dining tables."

Yet this prudence and the delay it causes lead to greater risks in another domain—genetic risks, as Shulevitz points out. As a woman ages, her risk of having a child with a trisomy—an extra copy of one of the 23 sets of chromosomes—increases. Trisomies lead to various disorders, depending on the identity of the extra chromosome, including Down syndrome, which occurs when a child inherits three copies of chromosome 21. The assisted reproductive technologies of various kinds, which older women often use to become pregnant, are associated with increased risk of birth defects. The risks aren't just for women. As men age, the number of new mutations that they could pass to their children goes up, as does their risk of having a child with autism. Scientists are also gathering support for the hypothesis that environmental influences, such as exposure to toxins, which accumulate with age, could do epigenetic "damage" to a man's sperm that may lead to physical and mental health problems for his children. (How epigenetics works in detail and whether it could also lead to accumulation of useful adaptions are still open questions.) Though people try to stabilize their relationships and finances before having children, they can't control chance mutations or epigenetic influences—no parent, young or old, can. The increased medical risks to children born of older parents are not only unfortunate but also ironic given the responsible intentions that motivate people to delay.

Then again, it's too simple to say that parents delay childbirth in order to better prepare to have children. People who focus on careers during their twenties and early thirties are not necessarily feathering a nest—they may just be engaged in work for its own sake. Whether you face an uncertain financial future as a young parent with an inchoate career or you face a child's genetic disorder as an older parent with ample resources, or you are any kind of parent, uncertainties come with the territory. In some cases, the uncertainty may be ironic, but irony is probably the last thing on the mind of a responsible parent.

Ashley Taylor is a contributor to the Genetic Literacy Project and a freelance journalist based in New York City.

You can subscribe to the weekly GeneTrends: Human newsletter, or our GeneTrends: Agriculture, by clicking <u>here</u>.