Is menstruation obsolete? Paula S Derry Personal View, *British Medical Journal*, 2007, *334*, 955 Available online at http://bmj.com/cgi/content/full/334/7600/955

Menstrual suppression has been recommended for medical conditions such as endometriosis, but it is also being proposed as a lifestyle choice for women who dislike menstruation or find it inconvenient. Articles in the professional and popular press have asserted that menstrual suppression is a reasonable lifestyle choice. Birth control options that reduce or eliminate periods are being developed. The oral contraceptive Seasonale, for example, combines 84 days of active pills (0.03 mg ethinyl oestradiol and 0.15 mg levonorgestrel) with seven days of placebo. Since menstrual flow occurs during the pillfree interval, a hormone-free interval every three months instead of the usual 21 days reduces the number of pill induced periods from 13 to four annually. Seasonale's website (www.seasonale.com) states: "Fewer periods. More possibilities . . . you might want to consider asking about Seasonale if you . . . wish you had more time between periods, and less of them."

The long term safety of menstrual suppression cannot currently be determined with experimental data. Seasonale, for example, has been approved by the Food and Drug Administration, but long term research was not required for approval. Overall, the existing data are limited, and whether or not long term risks exist remains uncertain: this would require lengthy study, of five years or more, and information about a broad range of users. Proponents have argued that menstrual suppression is safe, even beneficial, because monthly menstruation is unnecessary, even unhealthy. A seemingly scientific argument about the biological nature of women buttresses the idea that suppression can be considered safe even in the absence of experimental evidence. However, science involves logic and evidence, and the case against menstruation involves neither.

The case against menstruation was laid out in the book *Is Menstruation Obsolete?* published by Oxford University Press in 1999; its authors argue that monthly menstruation throughout most of adult life is a modern development. In industrial societies the average woman has few children and therefore may have 450 menstrual cycles during a lifetime. Women in hunter-gatherer cultures and other societies without birth control average a total of 160 periods because they are either pregnant or breast feeding much of the time and, the authors assert, exemplify what was natural in the prehistoric past when human bodies evolved and throughout most of human history. Monthly menstruation throughout adulthood is therefore at odds with what female bodies were designed to do; it is unnecessary and unnatural, and not surprisingly causes disease. To eliminate periods is a boon or at worst harmless.

But if it is more common today to have monthly menstrual cycles throughout adult life, this does not in itself mean that monthly menstruation is unnatural, much less that it is a medical problem. Human biology often permits variety and flexibility for different people in different situations. Nor is lifelong menstruation necessarily a modern invention. Women in cultures without birth control may average 160 menstrual cycles, but not every woman is the "average woman." Today, some women in societies without birth control have few children. More likely than not, such women existed in prehistoric times as well.

Throughout history women have been widowed, celibate for social or religious reasons, or angry with their spouses.

There probably have always been women who did not conceive quickly and men who were away from home for long stretches of time. Even ancient people may have used contraception. Malnourished women may stop ovulating without becoming amenorhoeic. Further, why women menstruate is unknown. Menstruation is an anomaly in nature, and we have no idea why it evolved only among humans and non-human primates. We do know that menstruation is what naturally occurs when women don't become pregnant, and that a menstruating woman is a healthy, probably fertile, woman—whereas unhealthy, malnourished, or massively stressed women are more likely to skip periods.

Even if prolonged monthly menstruation were unnatural and unhealthy, this would not prove that suppressing menstruation is better. Menstrual suppression itself is unnatural; a drug chronically overrides the physiological changes associated with the menstrual cycle, thereby creating an underlying hormonal environment that is not found in nature. Ovulation, the normal outcome of a menstrual cycle, is prevented because the hormones underlying ovulation have been suppressed. The menstrual flow is not a true period. Suppression may seem to mimic pregnancy and lactation, in the sense that there is no period, but the underlying hormonal milieu is far different.

The argument that menstruation is obsolete is illogical and unscientific. Reduced to its essentials, the argument amounts to this: too many periods can make women sick because women were meant to be constantly pregnant or breast feeding. The important questions are these: is there evidence that medications are safe and effective? What are the known benefits and risks, and what uncertainties exist with regard to future benefit and harm? Who should be using such medications? Are women provided with accurate information to make informed choices?