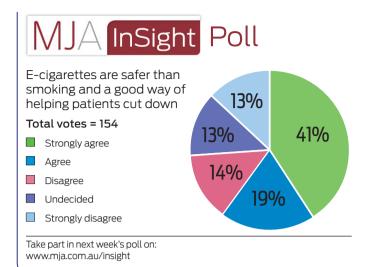


Byeongwook Kim of South Korea competes during the Powered Exoskeleton Race at the inaugural Cybathlon Championships held in Kloten, Switzerland. A total of 66 teams competed across six disciplines which also included the Powered Leg Prosthesis Race, the Powered Wheelchair Race, the Functional Electrical Stimulation Bike Race, the Brain-Computer Interface Race, and the Powered Arm Prosthesis Race.

Picture: Arnd Wiegmann/Reuters/Picture Media



MJA Podcast



Dr Liz Sigston is an ENT surgeon, breast cancer survivor, CEO, entrepeneur and single mother of two. She discusses her career path, challenges and the importance of leading a balanced life both inside and outside medicine.

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Can assisted reproduction lower birth defects for older mothers?

Research from the University of Adelaide suggests that babies born to women aged 40 and over from assisted reproduction have fewer birth defects compared with those from women who conceive naturally at the same age. Published in BJOG: An International Journal of Obstetrics and Gynaecology (doi: 10.1111/1471-0528.14365) the research, led by Professor Michael Davies from the Robinson Research Institute, was based on data of all live births recorded in South Australia from 1986-2002, including more than 301000 naturally conceived births, as well as 2200 births from in vitro fertilisation (IVF) and almost 1400 from intracytoplasmic sperm injection (ICSI). The average prevalence of a birth defect was 5.7% among naturally conceived births, 7.1% for the IVF births, and 9.9% for the ICSI births, across all age groups. In births from assisted reproduction, the prevalence of birth defects ranged from 11.3% at its highest for women less than age 30 using ICSI, down to 3.6% for women aged 40 and older using IVF. For natural conceptions, the corresponding prevalence across age groups was 5.6% in young women, increasing to 8.2% in women aged over 40 years. "There is some aspect of IVF treatment in particular that could be helping older women to redress the maternal



age issues we see among natural conception, where we observe a transition at around the age of 35 years toward a steadily increasing risk of birth defects," Professor Davies said. "We don't know what that is quite vet – it could be an aspect of hormonal stimulation that helps to reverse the age-related decline in

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control of ovulation. More research is desperately needed in this area to understand why this is occurring, and whether it could be adapted to both fertile and infertile women in future to prevent birth defects, which continue to be a major cause of death and disability in the first year of life globally."

Growing association between obesity and cancer

A new literature review by the International Agency for Research on Cancer published in the New England Journal of Medicine (doi: 10.1056/NEJMsr1606602) has concluded that "having lower overall body fat lowers the risk of developing eight tumor types: cancers of the gastric cardia, liver, gallbladder, pancreas, ovaries, and thyroid, in addition to multiple myeloma and meningioma", according to a commentary published in the Journal of the National Cancer Institute (doi: 10.1093/jnci/djw243). The review brings the list to 13 following the IARC's 2002 report which found evidence that the risk of being diagnosed with colorectal cancer, adenocarcinoma of the oesophagus, renal cell carcinoma, postmenopausal breast cancer, and uterine cancer was lower among non-overweight people. "The association between obesity and cancer is still not common knowledge. When people think of obesity, they think of diseases such as diabetes and cardiovascular issues," said one of the IARC authors.