

Lifestyle factors play role in IVF success

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West Australian couples wanting to increase their chances of falling pregnant through in vitro fertilisation (IVF) should consider quitting smoking, drink alcohol moderately and have a diet rich in fruit and vegetables, according to a recent study.

The recommendations are part of a study by Curtin University researchers who analysed data gathered from [couples](#) attending the Pivet

Medical Centre in West Leederville.

These couples completed a one-week diary documenting their smoking, alcohol and fruit and vegetable intake and compared it to current literature as part of the study.

"Overall the data indicated that smoking, particularly for longer periods [a matter of years], had a detrimental effect on several measures of fertility," Curtin University's Dr Kevin Keane says.

The longer a female smoked resulted in a more rapid loss of eggs and also affected fertilisation rates, with the chance of a successful fertilisation rate decreasing by 4.7 per cent for every year they smoked.

"For males, we found that first trimester pregnancy miscarriage was associated with male nicotine intake," he says.

The risk of pregnancy loss increased by about 2.4 per cent for every milligram of nicotine a male consumed per week in the lead up to IVF cycle, Dr Keane says.

In Australia, there were more than 66,000 assisted reproduction treatment cycles in 2013, resulting in more than 12,000 live births. More than 4000 WA women underwent IVF the same year.

Research into how lifestyle choices impact IVF success was severely lacking despite the high public interest in the common lifestyle choices that affect health and wellbeing, Dr Keane says, and this is what prompted the study.

The couple's alcohol and fruit and vegetable consumption had a favourable impact on fertilisation rates, something which Dr Keane says was surprising.

He recommended people eat more fruit and vegetable between six and three months before starting IVF.

The couple's respective ages was the most important influencing factor for IVF success, Dr Keane says.

He advises women have children before they are 35 and for couples to access IVF clinics quickly once infertility, or a variation thereof, had been identified.

While the study did not collect what alcohol was being consumed, past studies had shown moderate beer consumption was beneficial to health.

"Alcohol should only be consumed in moderation and women should stop drinking in the lead up to the IVF cycle," Dr Keane says.

Females should stop smoking about six months before IVF and males three months to increase their chances, he says.

More information: Sarah Firms et al. The effect of cigarette smoking, alcohol consumption and fruit and vegetable consumption on IVF outcomes: a review and presentation of original data, *Reproductive Biology and Endocrinology* (2015). [DOI: 10.1186/s12958-015-0133-x](https://doi.org/10.1186/s12958-015-0133-x)

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