

# Melanoma risk linked with IVF treatment and birth

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Melanin-producing cells are known to be hormonally-responsive and the link between reproductive hormones and melanoma has been studied since the 1970s. Credit: Jug Jones

An investigation into the association between IVF treatment and melanoma found women who had IVF treatment and gave birth to one or two children had an increased rate of invasive melanoma compared with those who did not have children.

The results, recently published in *Melanoma Research*, show that among the [women](#) who had IVF treatment, giving [birth](#) was associated with a 3.6-fold increase in the rate of invasive melanoma.

However, giving birth made little or no contribution to the risk of

invasive melanoma in women undergoing non-IVF infertility treatment.

In addition, they found no evidence for an association between IVF treatment and invasive melanoma among women who did not have children.

One possible explanation is that women undergoing IVF are more susceptible to invasive melanoma and this can be linked with the hormonal environment present in pregnancy, birth and lactation.

Research Assistant Louise Stewart from UWA's School of Population Health says the finding is associational.

"This is an important new finding; however, it requires confirmation from other studies and should be interpreted with caution," Professor Stewart says.

"The study is an observational study, and as such, can only reveal an association between exposure [IVF plus birth] and outcome [melanoma].

"It does not tell us if this association is causal."

The study included women aged 20-44 years seeking investigation for infertility in Western Australia between 1982 and 2002, with further follow-up in 2010.

In total, 21,604 women were enrolled in the study.

During this time 7524 had IVF treatment, 14,870 gave birth, and 149 were diagnosed with invasive melanoma.

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The incidence rate of melanoma increases with age in men and women, but it slows down in women following menopause.

A review by Gandini et al in 2011 summarised the results of thirty-six observational studies and found significant associations of melanoma with [giving birth](#) and age at first pregnancy.

The results of this study show an association between reproductive factors and invasive melanoma in women undergoing IVF [treatment](#) which, researchers say warrants future investigation.

Provided by Science Network WA

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