

Pomegranate extract stimulates uterine contractions

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a steroid that can inhibit the absorption of cholesterol in the intestine - as the main constituent of pomegranate seed extract. The research suggests that pomegranate extract could be used as a natural stimulant to encourage the uterus to contract during labour.

Pomegranate juice is thought to have a number of health benefits, from lowering cholesterol and blood pressure to protecting against some cancers, but until now there has been no evidence to demonstrate its effects on the uterus. Researchers investigated pomegranate seed extract - more highly concentrated than pomegranate juice - and its effect on uterine smooth muscle samples.

Professor Sue Wray, from the University's Department of Physiology, said: "Previous study has suggested that the pomegranate's antioxidant and anti-inflammatory properties have a positive impact on health. We wanted to understand its effect on uterine contractions to help us explore new ways of treating women who may experience difficult labours. Currently the only available drug to treat women with a poorly contracting uterus is [oxytocin](#), a [hormone](#) which only works approximately 50% of the time.

"It is important for us to investigate how the uterus works and what happens when it does not contract normally so that women experiencing problems during labour do not have to undergo major surgery to deliver a healthy baby."

Dr Sajeera Kupittayanant, from Suranaree's Institute of Science, explains: "We found that beta-sitosterol was the main constituent of pomegranate extract, a steroid present in many plant species, but particularly rich in pomegranate seed. We added the extract to uterus tissue samples from animals and found that the [muscle cells](#) increased their activity. Our work suggests that the increase is due to a rise in calcium, which is necessary in order for any muscle to contract, but is usually

affected by hormones, nerve impulses and some drug treatments.

"The next step is to investigate how beta-sitosterol in pomegranate extract could increase calcium, but it could prove to be a significant step forward in identifying new ways of treating dysfunctional labour."

The research, published in *Reproductive Sciences*, will support work being conducted at a new centre dedicated to improving experiences in pregnancy and childbirth for women across the world. The Centre for Better Births will bring together researchers and clinicians to improve understanding in areas such as premature labour, recurrent miscarriage and prolonged labour.

Provided by University of Liverpool

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