

A two-minute delay in cutting the umbilical cord leads to better newborn development

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A study conducted by University of Granada scientists (from the Physiology, Obstetrics and Gynaecology Departments) and from the San Cecilio Clinical Hospital (Granada) has demonstrated that delaying the cutting of the umbilical cord in newborns by two minutes leads to a better development of the baby during the first days of life.

This multidisciplinary work, published in the prestigious journal *Pediatrics* reveals that the time in cutting the [umbilical cord](#) (also called umbilical cord clamping) influences the resistance to [oxidative stress](#) in newborns.

For this research, scientists worked with a group of 64 healthy pregnant women who went into labour in the San Cecilio Clinical Hospital in Granada. They all had a normal pregnancy and spontaneous vaginal delivery. Half of the newborns had their umbilical cord cut 10 seconds after delivery, whereas the other half had it cut after two minutes.

Beneficial effect

The results of this research suggest that there are beneficial effects in the late clamping of the umbilical cord: there was an increase in the antioxidant capacity of mature newborns and there was moderation of inflammatory effects in the case of induced delivery.

According to the PI in this project, University of Granada professor Julio José Ochoa Herrera, umbilical cord clamping is one of the most frequent surgical interventions practiced upon humans, and we have had proof of such practice for centuries. However, the right timing for clamping is controversial, and it involves important differences both for the mother and for the newborn.

This research led by the University of Granada compares for the first time the impact of the

moment of clamping upon the oxidative stress and the inflammatory signal produced during delivery in both the mother and the newborn. "Our study demonstrates that late clamping of the umbilical cord has a [beneficial effect](#) upon the [antioxidant capacity](#) and reduces the inflammatory signal induced during labour, which could improve the development of the newborn during his or her first days of life", Ochoa concluded.

More information: "The Timing of Cord Clamping and Oxidative Stress in Term Newborns" *Pediatrics* 2014;134;257; [DOI: 10.1542/peds.2013-3798](https://doi.org/10.1542/peds.2013-3798)

Provided by University of Granada

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