

# Babies affected by fetal growth restriction show lasting differences that can affect development



Babies affected by fetal growth restriction (FGR) can show lasting differences after birth. These differences are not just about being smaller, they affect heart rate, brain development, growth and cognitive and motor function. Early monitoring and support may help every FGR child reach their developmental milestones.



Evidence from:  
Metabolic expenditure,  
neurodevelopment, and weight  
gain into early childhood after  
fetal growth restriction. Scientific  
Reports (2026)

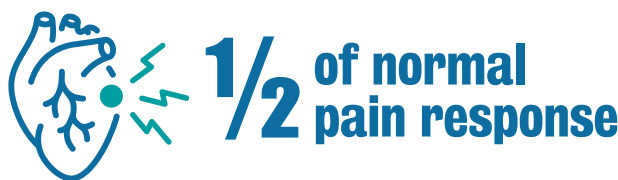
## 1 Higher heart rate



This may sound small, but it means their heart beats around 4,600 times more per day than other babies the same age.

This is equivalent to the heart rate of a baby around six weeks younger.

## 2 Pain looks different



FGR babies had a lower heart rate increase after heel prick tests.

This does not mean they feel less pain during procedures, but that they may not show stress the same way as other babies.

## 3 Less white matter

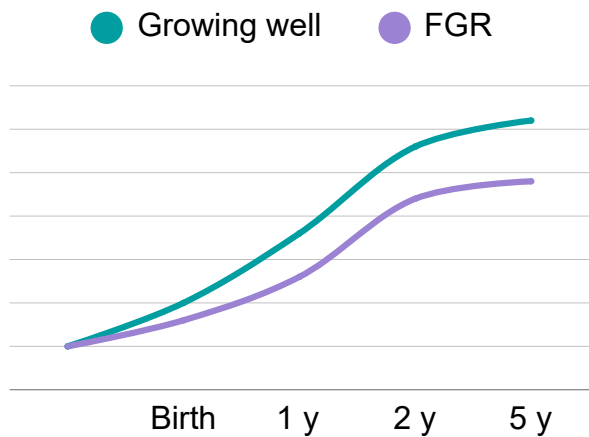


White matter helps different parts of the brain communicate.



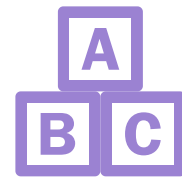
MRI findings suggest that FGR babies may reduce brain development to conserve resources.

## 4 Slower weight gain



Even after birth, FGR babies tend to gain weight more slowly and stay smaller. This suggests they have less energy available for growth.

## 5 Development delays



Poorer growth was also linked with less optimal cognitive and motor development at one to two years, even after taking FGR diagnosis into account.

Supporting healthy growth may support better development.



### What this means in practice



Treat FGR as an ongoing infant vulnerability, not just a birth weight issue.



Consider the baby's individual baseline physiology when assessing pain, stress or deterioration.



Use restricted growth as a cue for extra developmental support.