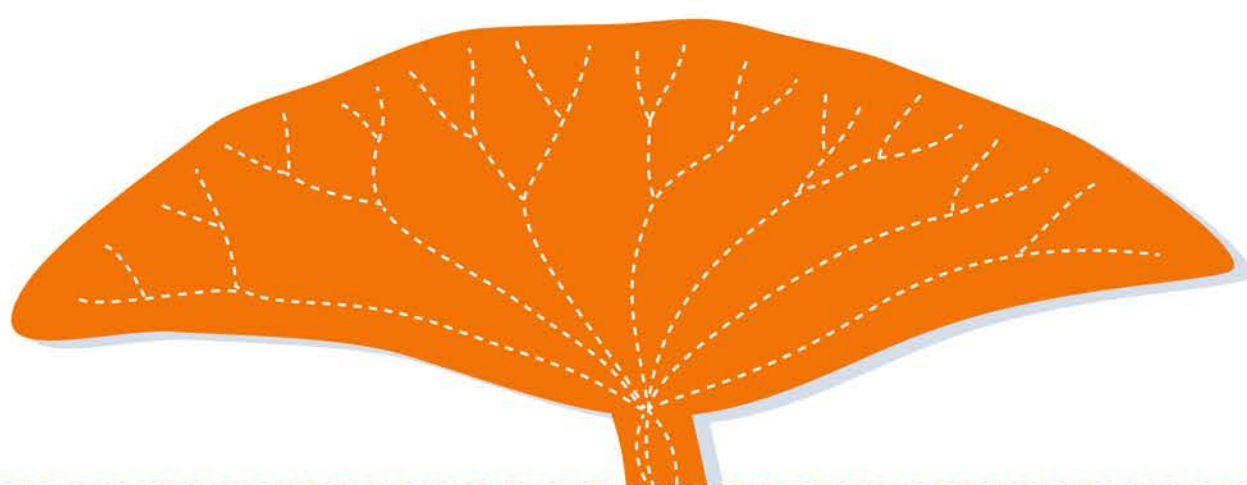


THE PLACENTA

A VITAL ORGAN FOR BABY, MOM, AND SCIENCE



What is the placenta?

A temporary organ linking mother and fetus—brings nutrients and oxygen to the fetus and moves harmful waste and materials away.



Oxygen



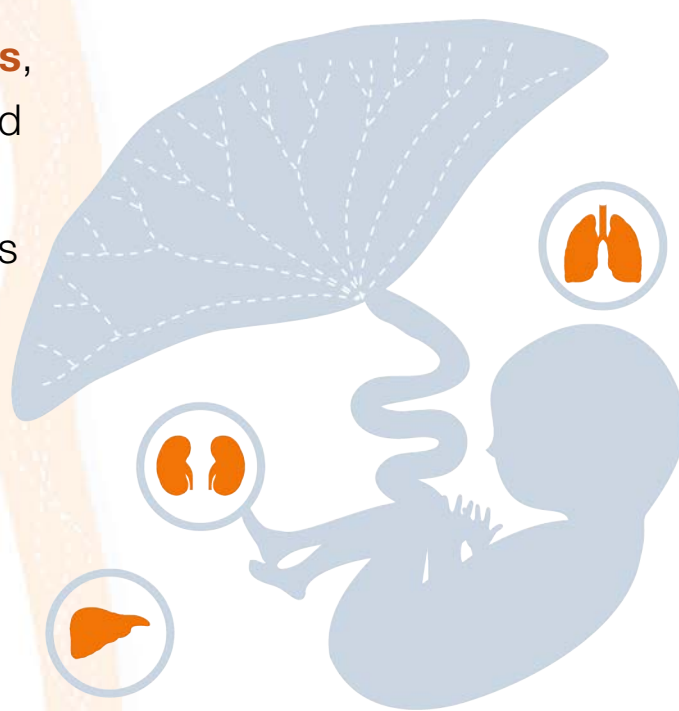
Nutrients



Protection

What does the placenta do?

- ▶ **It performs multiple functions**, acting as the lungs, kidneys, and liver, and the gastrointestinal, endocrine, and immune systems for the fetus.
- ▶ **It produces hormones** to help maintain pregnancy and support fetal development.
- ▶ **It protects** the fetus from the mother's immune system.



Why is the placenta so important?

- ▶ **Vital for pregnancy, it plays a big role in pregnancy outcomes.** Problems with the placenta can result in conditions like preeclampsia, gestational diabetes, prematurity, and stillbirth.
- ▶ **It can influence lifelong health.** Problems with the placenta can be a marker, maybe even a cause, of later disease of mother and child.



What does science say?

Scientists are still learning what a “normal” placenta is and how it functions.

Many past studies were limited to analyzing the placenta **after** delivery.

New technologies may allow scientists to safely study the placenta **during** pregnancy.

Learning more about the placenta could:

- ▶ Pave the way for **new treatments to improve the health of mom and baby**, during pregnancy and throughout their lives.
- ▶ Provide **insights into other important health issues** like organ transplantation and cancer treatment.



Human Placenta Project (HPP)
<http://www.nichd.nih.gov/hpp>