



HOW DO YOU GROW?

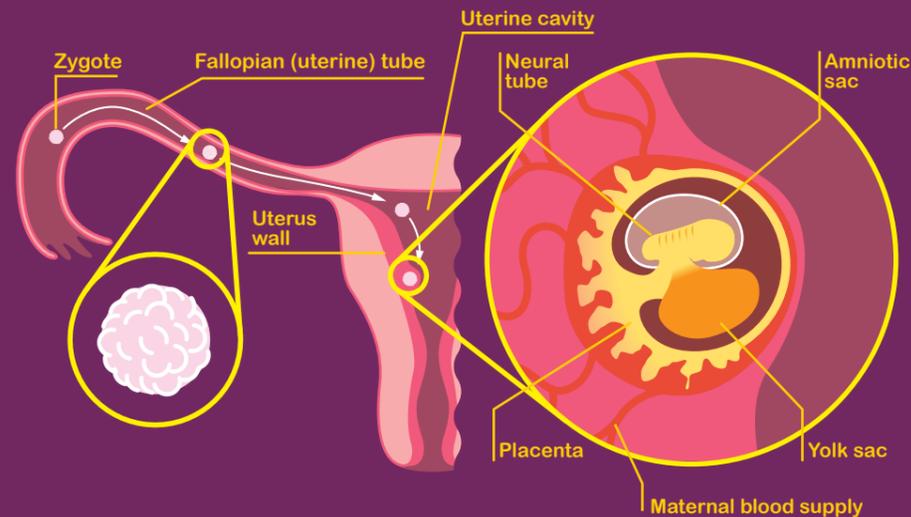
Human growth is a complicated process that begins at your conception and ends in adulthood.

This chart shows the periods of growth you go through on your way to becoming an adult.

PHASE	AGES	GROWTH TRIGGERS	GROWTH RATE	% OF EVENTUAL HEIGHT
Foetal	Conception to birth	DNA; nutrition; placenta	Fastest	30%
Infantile	Birth to 18 months	Nutrition; good health; happiness	Rapid but slowing down	15%
Childhood	18 months to puberty	Growth hormones; thyroid hormones; good health; happiness	Slow, steady, prolonged	40%
Puberty	Puberty to adulthood	Growth hormones; testosterone; oestrogen	Growth spurts	15%

EMBRYO STAGE

Your parents' combined DNA blended to make a new single cell called a **zygote**, which contained the code for your own unique DNA and the instructions for building your **entire body**. Your original single cell copied your DNA code and split apart into two cells, this took roughly 24 hours. Your cells continued copying and splitting and by the end of the third day, you were a multi-celled ball that looked a little like a tiny mulberry. You passed through the **fallopian tube** and attached to the **uterus wall**, you formed your own **placenta** and **amniotic sac**, and then tiny, multi-celled-ball-you started floating in **amniotic fluid**.



Your 3-week-old embryo was 2–3 mm long and your **neural tube** (later to be your spinal column) was formed. At 4 weeks from conception you were 4–5 mm long and your four-chambered heart started beating! Just 8 weeks after your single cell was formed, most of your major development had occurred and all your major organs and body parts were formed. Your **embryo** was 25–30 mm long (about the size of a raspberry), your face and neck had taken shape and you started to move.

ECHOES OF EVOLUTION

During the second week of your embryo development, you developed a **yolk sac**, a relic left behind by ancestors who laid eggs. In your fourth week you resembled a fish embryo. During your fifth week you resembled a chick embryo. By your seventh week you were clearly a mammal, with a small tail.

What? Ed

Yep, a tail! And by week eight, your embryo had evolved to your human

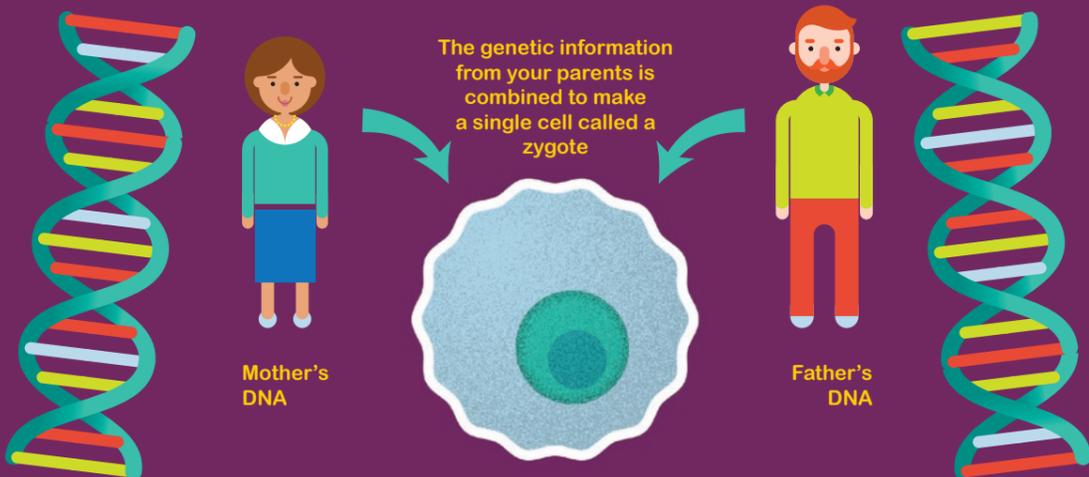
form. You carry the story of evolution in your DNA.

FOETAL GROWTH

Your body grew larger and stronger as you evolved in the womb and your brain grew rapidly in the last three months. Your growth was determined by your inherited genes, your placenta and the nutrition passed to you by your mother. You grew from a single cell into a fully-formed baby made up of trillions of cells in just nine months!

GENETICS

At conception, an egg from your mother and a sperm from your father combined to create you. The egg and sperm carried your parents' genetic information (**DNA**) and as the two parts combined, your **genetic make-up** was formed. Your genetics determined how your body would grow. If your parents are short or tall, you're likely to grow up like them.



EMBRYO GROWTH AS FRUIT & VEG

