ARDYSSLIFE®

AGE WELL. THRIVE WELL.

How Cells Work 101

Wellness Wednesday

May 17th, 2023

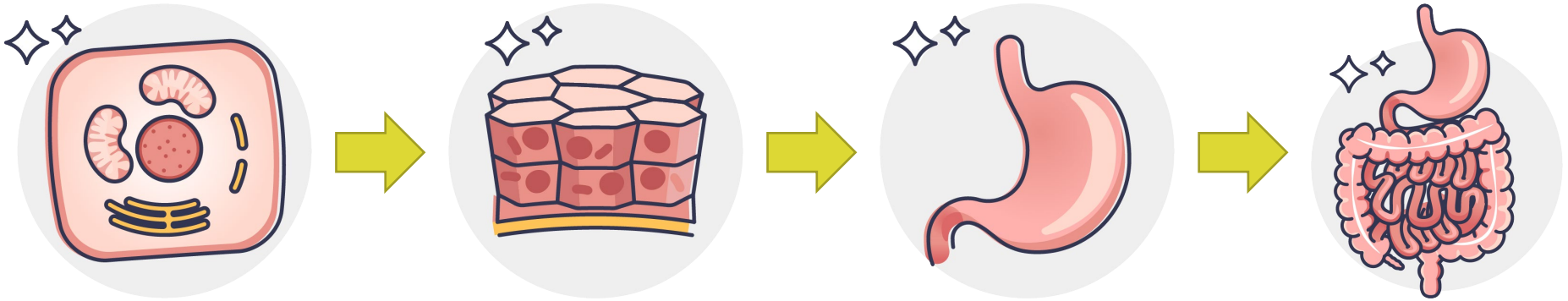
Why is learning about cells important?

1. Everything we talk about in cellular nutrition is based on cells.

2. When you learn how important cells are, you understand why cellular **health** is so important!

What is a cell?

Cells are the basic building blocks of your body, which is composed of about **37 trillion cells**, all with their own specialized function.

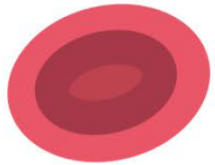


Types of Cells

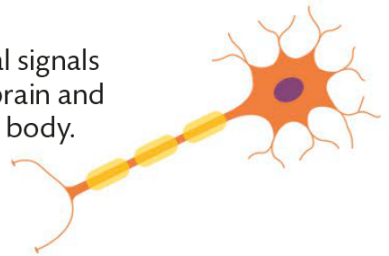
There are around **200 different types** of cells in your body.

Even though they look different under a microscope, most cells have common features.

Red blood cells
Lack a nucleus and carry as much oxygen as possible.



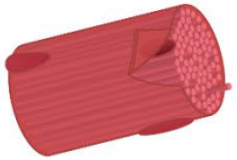
Nerve cells
Carry electrical signals between the brain and all parts of the body.

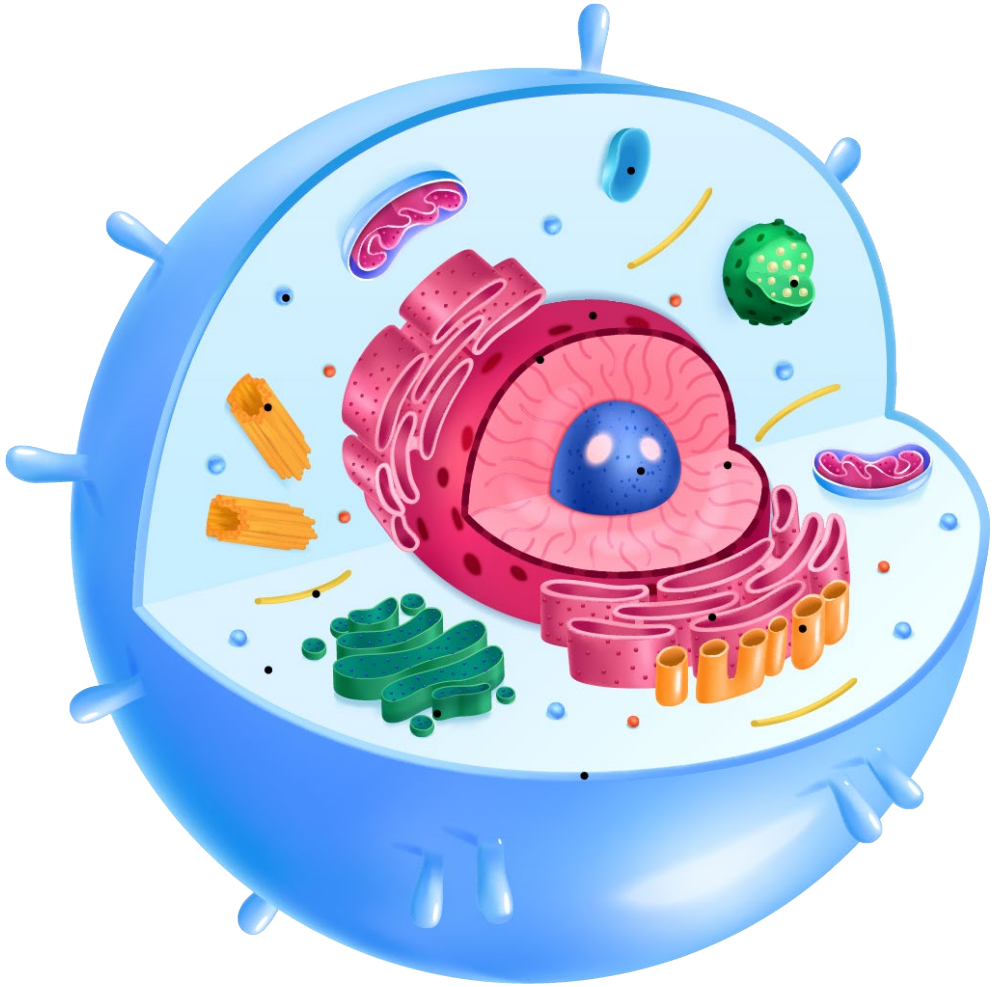


Epithelial cells
Line the surfaces and cavities of the body to form a tight barrier.

Adipose cells
Store molecules of fat that help insulate the body and can be turned into energy.

Skeletal muscle cells
Arranged into fibrous bundles that contract to move bones.

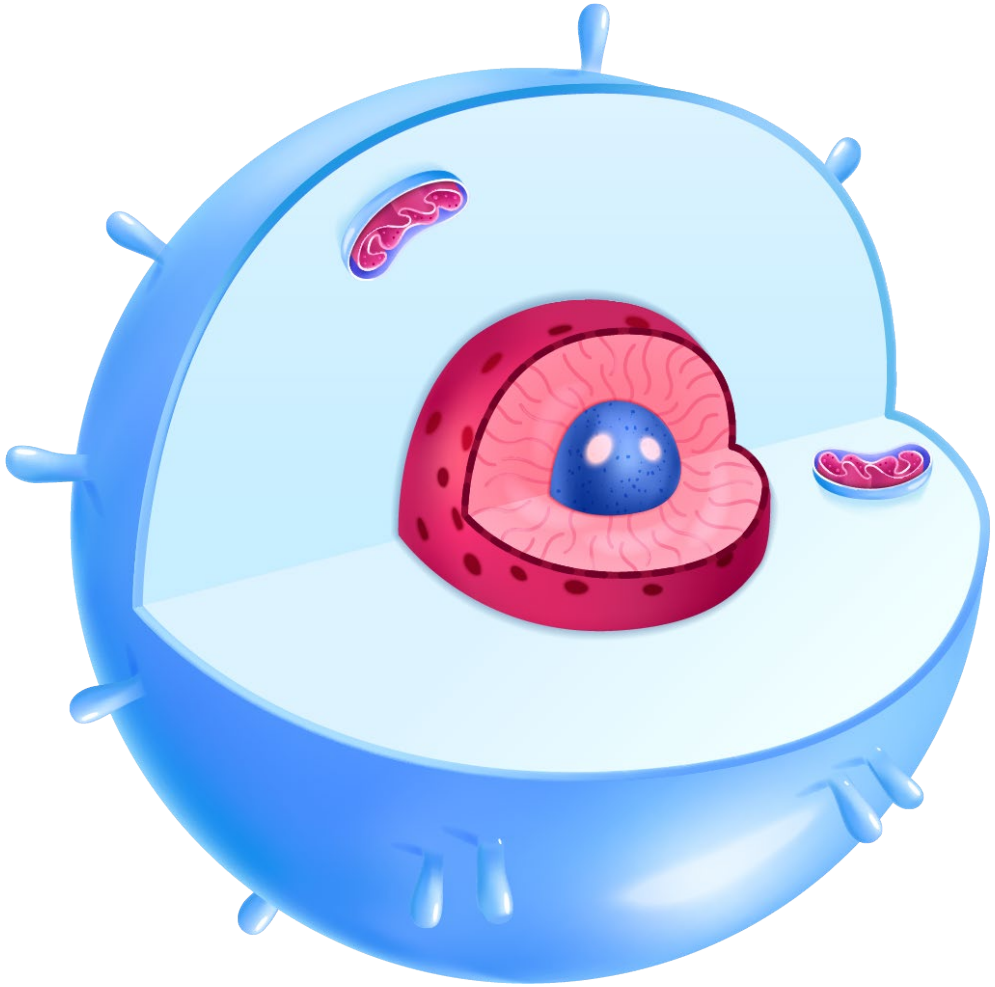




How do cells work?

All the resources a cell needs are contained within the cell.

Most cells have a nucleus – a structure in their center that contains genetic data (DNA). They rely on this data to do their job correctly.

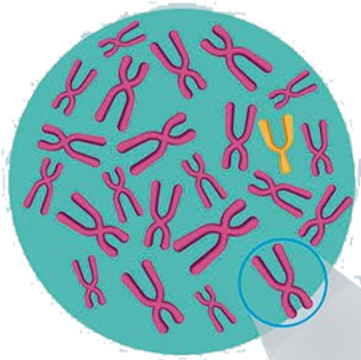


How do cells work?

The only parts you really need to know when marketing Le'Vive Essentials are:

NUCLEUS

MITOCHONDRIA



What's so important about the Nucleus?

CHROMOSOME

The nucleus is the control center of the cell and contains DNA which is tightly coiled into 23 pairs of **chromosomes**.

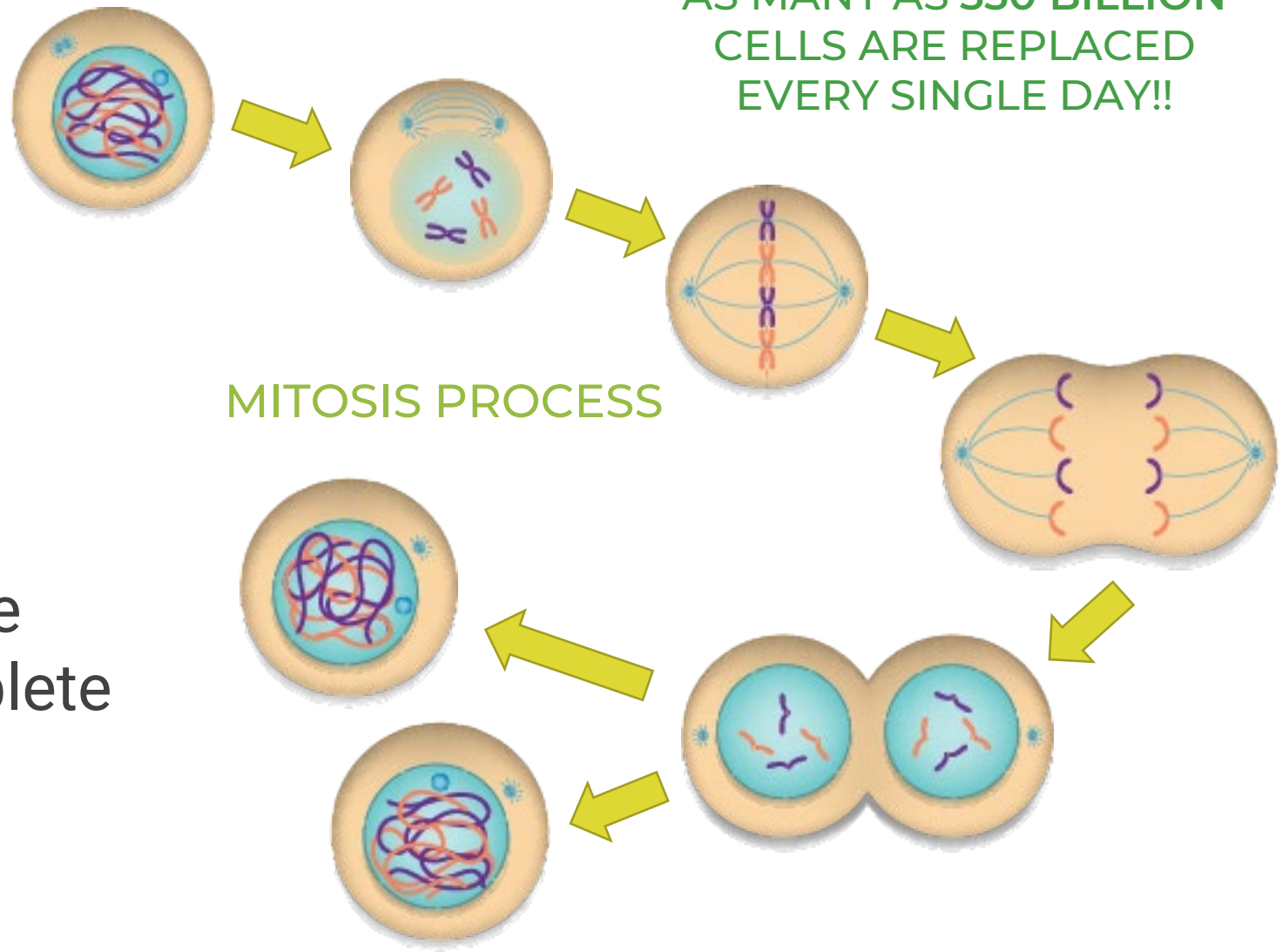
HOW MUCH DNA?

If you uncoiled the DNA, it would be 6 feet (2 meters) long!

One primary job of cells is to replicate.

Cells need to multiply and replace constantly because they get damaged or complete their life cycle.

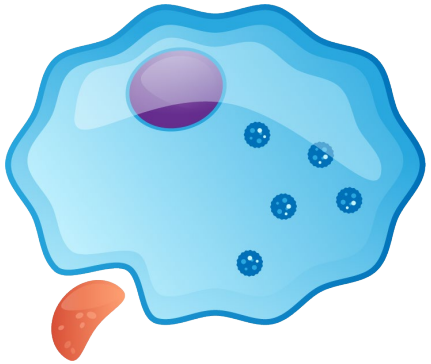
AS MANY AS **330 BILLION** CELLS ARE REPLACED EVERY SINGLE DAY!!

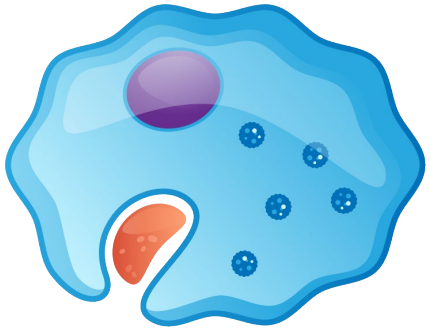


Our DNA gets damaged a lot.

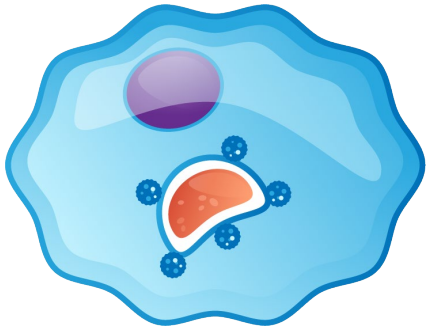
CELLS GET DAMAGED ANYWHERE FROM 10,000 TO 100,000 TIMES PER DAY!

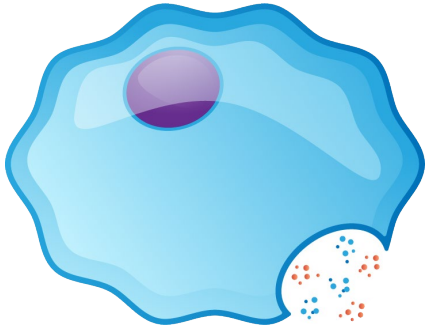
Every day, the DNA in cells is damaged – whether by natural processes or environmental factors. This damage can affect DNA copying – and if it can't be repaired, or is repaired incorrectly, it can lead to disease.

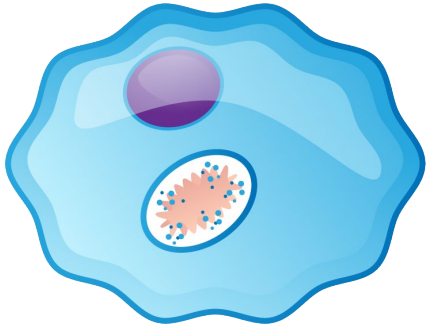




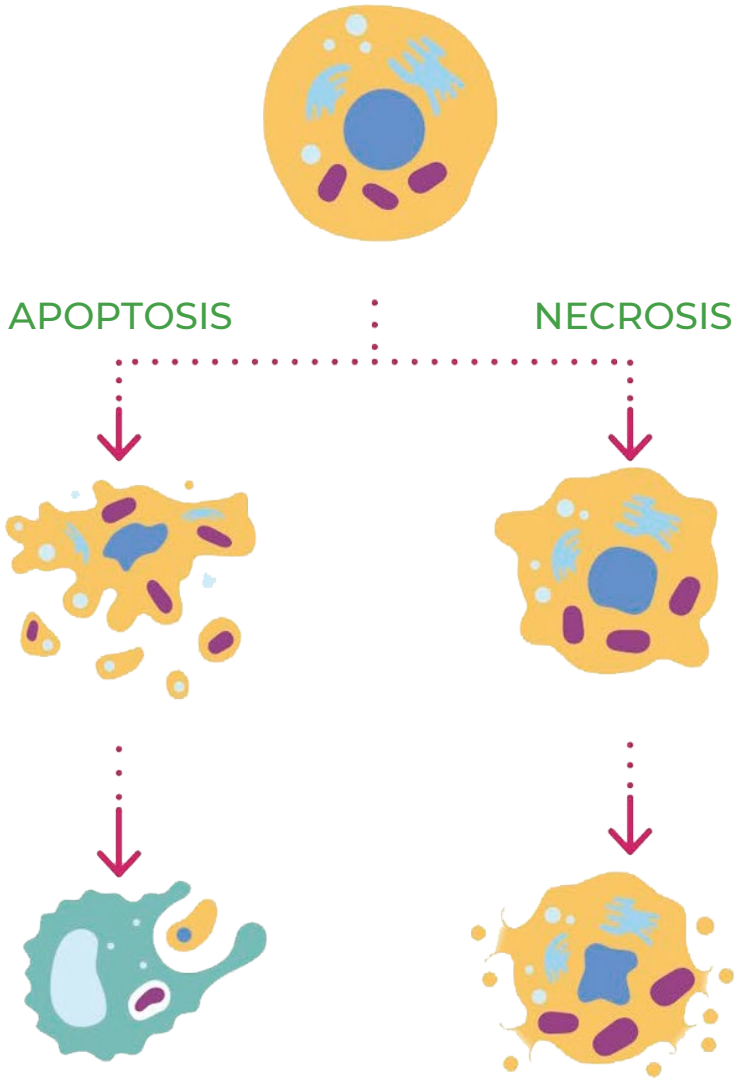
Our cells need micronutrients to be healthy.







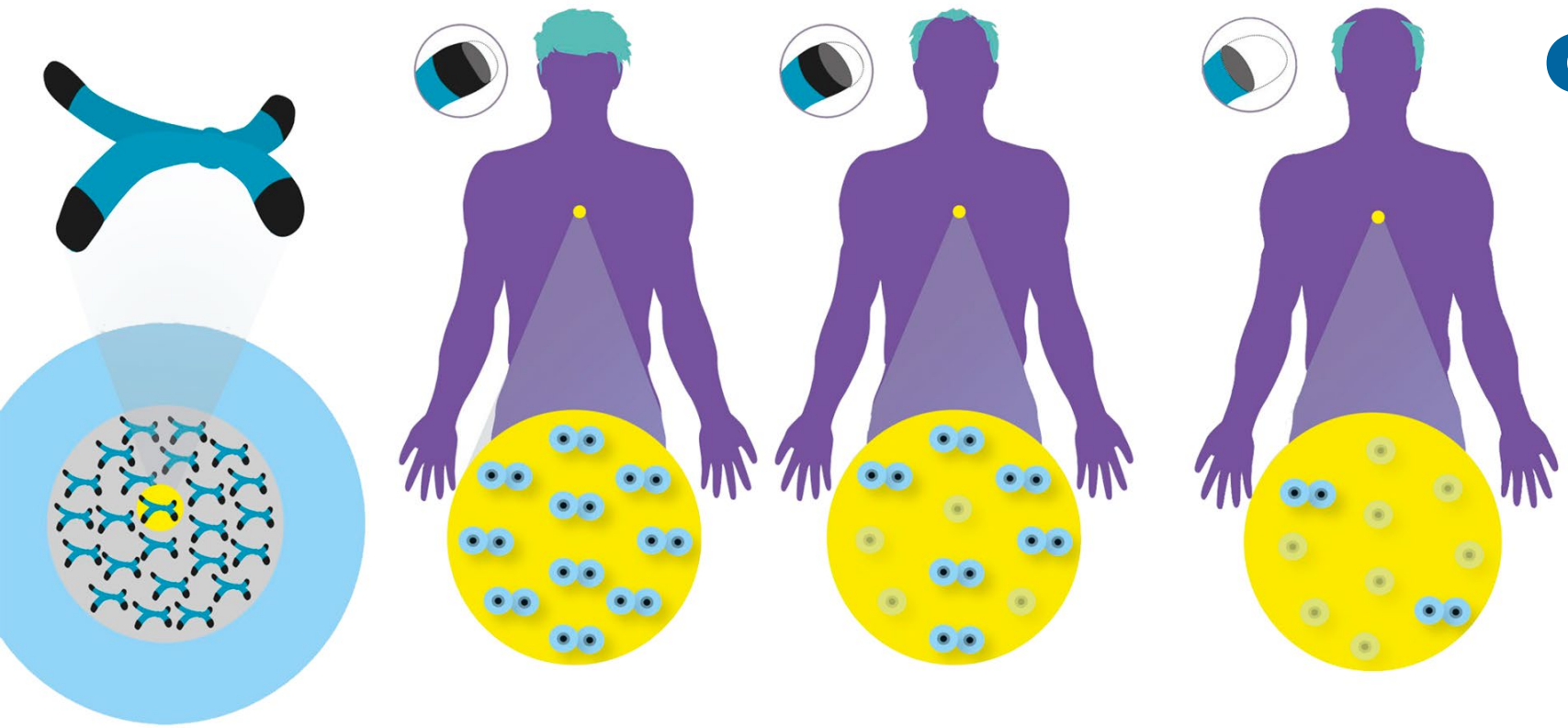
Our cells need to be fed constantly and can only get the **micronutrients** from foods we eat and supplements we consume. Those are then broken down and delivered to the cells.



Our cells don’t live forever.

When cells have reached the natural end of their life cycle, they undergo **apoptosis**.

Cells can also die prematurely due to infections or toxins.

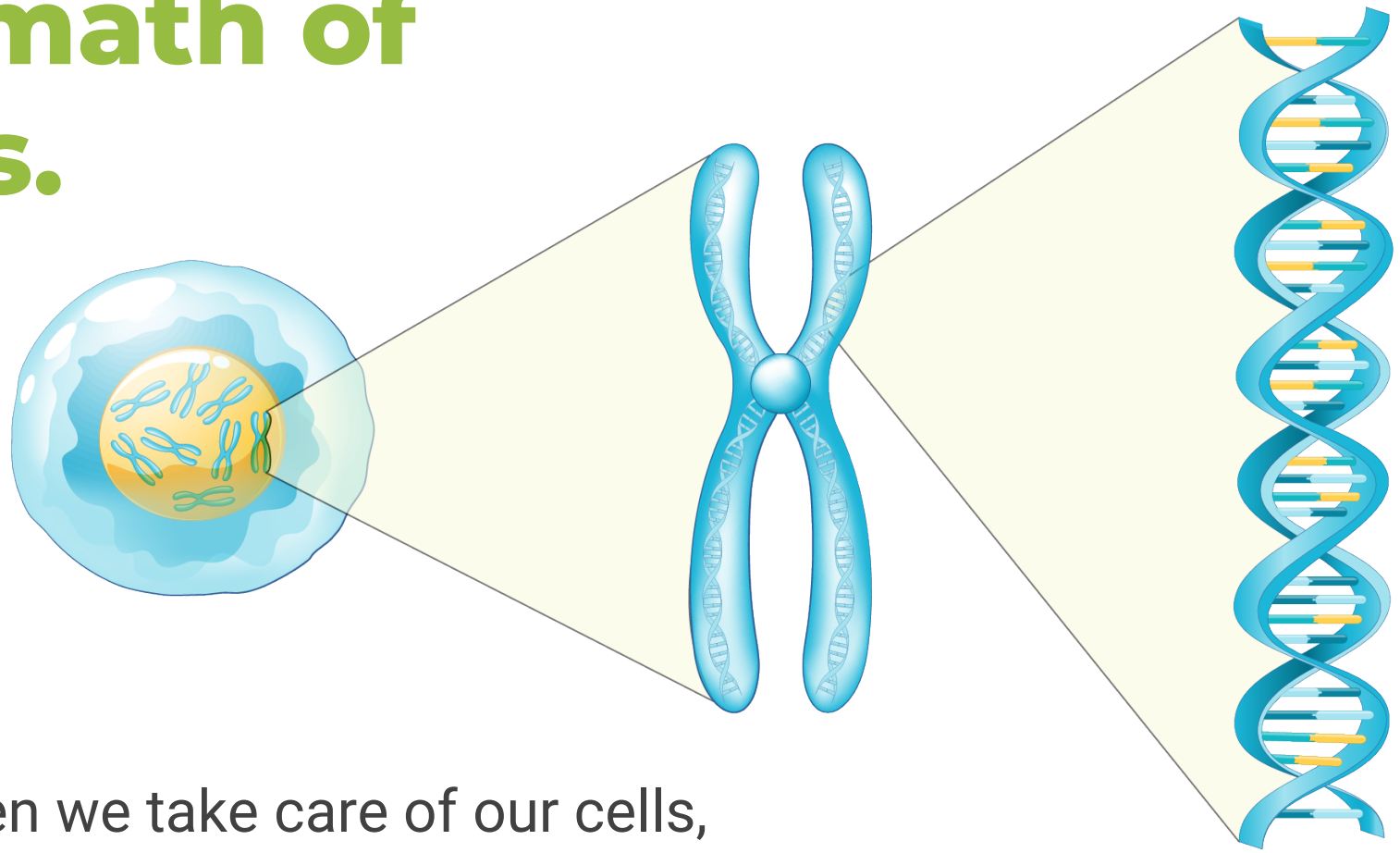


We age as our cells do.

Telomeres have a big affect on how our cells age and die. The number of replicating cells reduces as we age.

The simple math of healthy cells.

If our whole body is comprised of cells, which form tissues and organs and systems… then healthy cells create a healthy body.



When we take care of our cells, then they take care of us!

Summary of important points:

1. Our cells are the building blocks to everything we are, and healthy cells mean a healthy you, and unhealthy cells mean an unhealthy you.

2. Our cells replicate constantly, as many as 330 billions cells are replaced every single day.

3. Our cells need micronutrients that can only come from foods we eat or supplements we take.

4. The longer our cells live and remain healthy, the longer we live and remain healthy.

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