

Heart Beats in Medley with VO2

HEART BEATS

Your heart muscle tissue's got a specialty.
Its cells are all connected by 'lectricity.
Your heartbeat begins with a single spark
and this signal's carried through it in a double arc.

If left all its own, your heart would beat in haste,
'bout 20 beats per minute, a resting heart would waste.
Now, healthy heart chambers pump your blood much stronger.
Special nerves will slow the beat down, heart relaxes much longer.

Heartbeats, heartbeats...

The more blood can be pushed in a single beat,
the sooner blood will travel from your heart down to your feet.
Your blood vessels open where it's got to go
and close up on and off where not needed so...

Muscles working hard will get for what they call
with smooth and even pressures on blood vessel walls.
As you'll learn in this lesson, in cycles blood flows
in a closed piping system, here's what you've got to know.

Heartbeats, heartbeats ...

Your blood returns to the heart through the two vena cavae,
fills up the right atrium, your first heart chamber.
From this chamber, it gets pumped to a second one
and then on into your lungs for some oxygen.

In this second right chamber, low pressure is arranged.
Blood enters lung alveoli, where gases are exchanged.
There, oxygen gets pushed through walls of tiny capillaries.
Red blood cells come to pick it up,
and back to your heart it's carried.

Heartbeats, heartbeats ...

Still in your lungs, when you exhale, you blow CO₂ out.
How fast or slow this all occurs is what breathing's all about.
Your heart's left side is different; refreshed blood travels back.
It goes to the left atrium; that's the top, left sack.

And on from your heart's last chamber,
(the left ventricle) the strongest of them all,
blood is pushed through the aorta with the power of its walls.
It travels through your body, out to its destinations, bringing
oxygen and fuel to cells, which go through respiration.



VO₂

(VO₂ max means aerobic capacity)

What does respiration mean? It's your cells using fuels
and mixing them with oxygen. It's really very cool.
Your body uses nutrients and transfers energy
to make a special compound that's known as ATP.

The more you move the more you make. Your cells build factories
known as mitochondria, which make your body's currency
to pay for everything you do, from breathing to heartbeat
and every muscle movement from your head down to your feet.

You know your heart's a muscle? In case your didn't know,
it must beat strong throughout your whole life,
though its strength seems not to show.
You cannot pose or "flex" it or pump it up to brag,
but guaranteed, when you challenge it, this muscle will not sag.

It seems we only pay attention to the things we see,
but when you train them, cells will know.
They'll make and use more energy.
Your heart will ease its effort, sending blood with fewer beats.
When you exercise your body, the more demands it meets.

Your body builds more branches and blood routes to each cell
so oxygen and nutrients can reach them very well.
The more your cells use oxygen, the more fat you will use,
while running, biking, swimming, or anything you choose.
All in all, what this stuff means, in fancy terms, you see.
Keep movin' and you'll improve aerobic capacity.