

# TEN THINGS YOU DIDN'T KNOW ABOUT

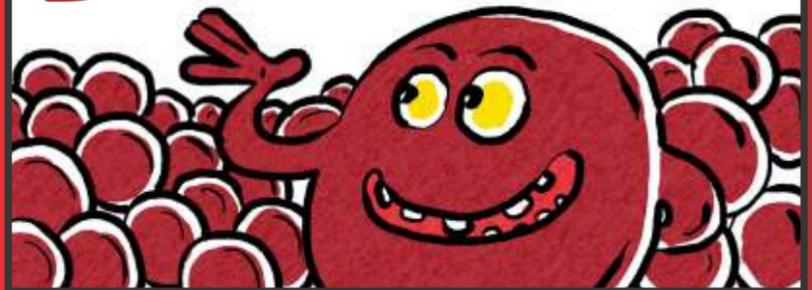
Srikanth K.S

## 1 NEARLY 78% OF THE WEIGHT OF YOUR BODY IS MADE UP BY BLOOD!

AN AVERAGE WOMAN HAS ABOUT 4.5 LITRES OF BLOOD IN HER BODY, WHILE AN AVERAGE MAN HAS ABOUT 5.6 LITRES. INTERESTINGLY, PEOPLE WHO LIVE AT HIGH ALTITUDES (IN THE MOUNTAINS) CAN HAVE UP TO 2 LITRES OF EXTRA BLOOD COMPARED TO THOSE WHO LIVE AT LOWER ALTITUDES. THIS IS BECAUSE THE AIR AT HIGH ALTITUDES HAS LESS OXYGEN, SO PEOPLE LIVING THERE NEED EXTRA BLOOD TO DELIVER THE REQUIRED AMOUNT OF OXYGEN TO THEIR LUNGS.

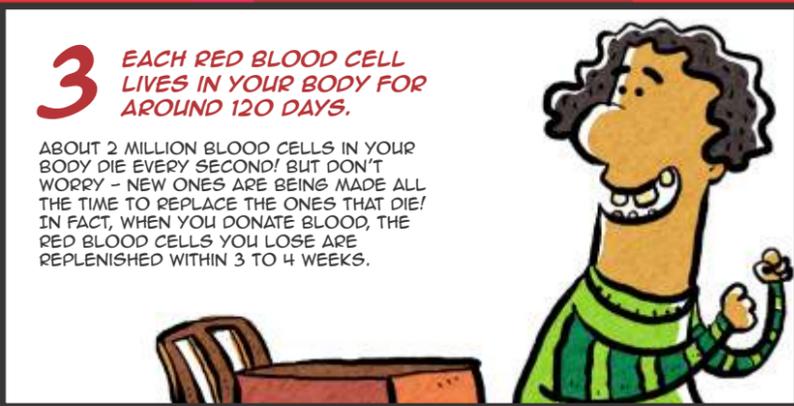


## 2 THERE ARE ABOUT ONE BILLION RED BLOOD CELLS IN TWO TO THREE DROPS OF BLOOD!



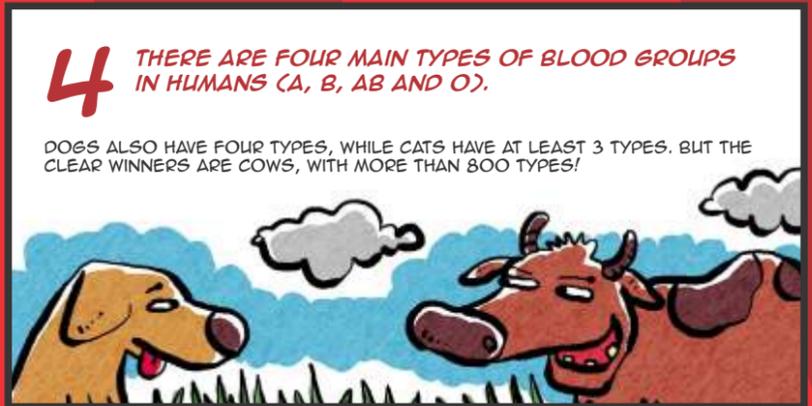
## 3 EACH RED BLOOD CELL LIVES IN YOUR BODY FOR AROUND 120 DAYS.

ABOUT 2 MILLION BLOOD CELLS IN YOUR BODY DIE EVERY SECOND! BUT DON'T WORRY - NEW ONES ARE BEING MADE ALL THE TIME TO REPLACE THE ONES THAT DIE! IN FACT, WHEN YOU DONATE BLOOD, THE RED BLOOD CELLS YOU LOSE ARE REPLENISHED WITHIN 3 TO 4 WEEKS.



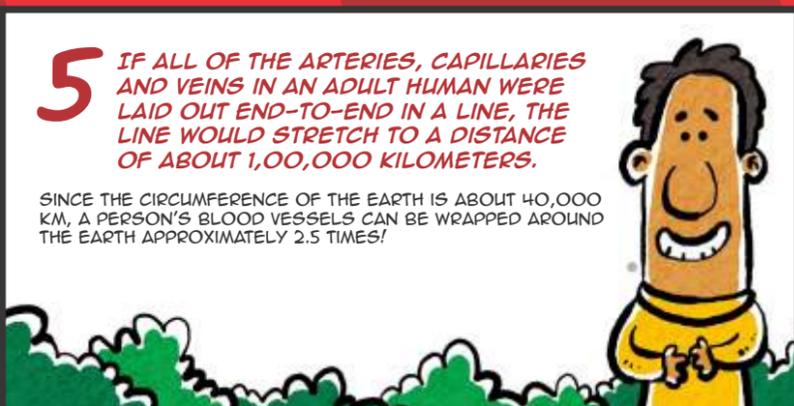
## 4 THERE ARE FOUR MAIN TYPES OF BLOOD GROUPS IN HUMANS (A, B, AB AND O).

DOGS ALSO HAVE FOUR TYPES, WHILE CATS HAVE AT LEAST 3 TYPES. BUT THE CLEAR WINNERS ARE COWS, WITH MORE THAN 800 TYPES!



## 5 IF ALL OF THE ARTERIES, CAPILLARIES AND VEINS IN AN ADULT HUMAN WERE LAID OUT END-TO-END IN A LINE, THE LINE WOULD STRETCH TO A DISTANCE OF ABOUT 1,00,000 KILOMETERS.

SINCE THE CIRCUMFERENCE OF THE EARTH IS ABOUT 40,000 KM, A PERSON'S BLOOD VESSELS CAN BE WRAPPED AROUND THE EARTH APPROXIMATELY 2.5 TIMES!



## 6 A BLOOD CELL CAN DO A COMPLETE LAP OF YOUR BODY IN LESS THAN A MINUTE. THAT IS FAST!

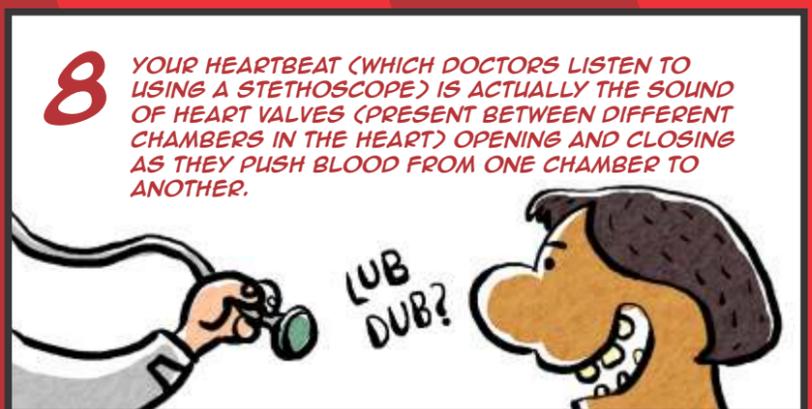


## 7 THE SIZE OF THE BODY IS INVERSELY RELATED TO THE RATE AT WHICH THE HEART BEATS - THE BIGGER THE ANIMAL, THE SLOWER IS ITS HEART RATE.

AN ADULT HUMAN HAS AN AVERAGE NORMAL HEART RATE OF ABOUT 70-75 BEATS PER MINUTE. THE LARGEST ANIMAL IN THE WORLD, THE BLUE WHALE (WITH A HEART THE SIZE OF A MINI CAR) HAS A HEART RATE OF ONLY 5 BEATS PER MINUTE. ONE OF THE SMALLEST MAMMALS, THE SHREW, HAS A HEART RATE OF ABOUT 1,000 BEATS PER MINUTE!

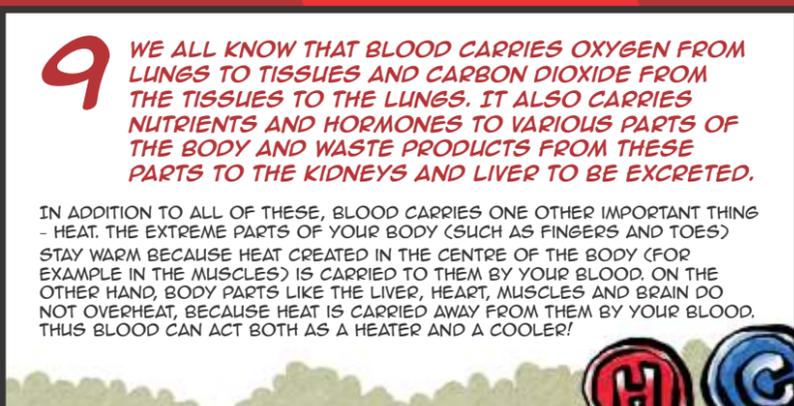


## 8 YOUR HEARTBEAT (WHICH DOCTORS LISTEN TO USING A STETHOSCOPE) IS ACTUALLY THE SOUND OF HEART VALVES (PRESENT BETWEEN DIFFERENT CHAMBERS IN THE HEART) OPENING AND CLOSING AS THEY PUSH BLOOD FROM ONE CHAMBER TO ANOTHER.

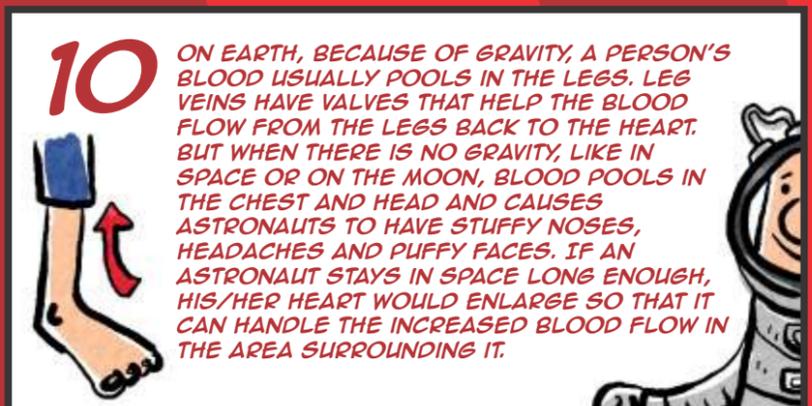


## 9 WE ALL KNOW THAT BLOOD CARRIES OXYGEN FROM LUNGS TO TISSUES AND CARBON DIOXIDE FROM THE TISSUES TO THE LUNGS. IT ALSO CARRIES NUTRIENTS AND HORMONES TO VARIOUS PARTS OF THE BODY AND WASTE PRODUCTS FROM THESE PARTS TO THE KIDNEYS AND LIVER TO BE EXCRETED.

IN ADDITION TO ALL OF THESE, BLOOD CARRIES ONE OTHER IMPORTANT THING - HEAT. THE EXTREME PARTS OF YOUR BODY (SUCH AS FINGERS AND TOES) STAY WARM BECAUSE HEAT CREATED IN THE CENTRE OF THE BODY (FOR EXAMPLE IN THE MUSCLES) IS CARRIED TO THEM BY YOUR BLOOD. ON THE OTHER HAND, BODY PARTS LIKE THE LIVER, HEART, MUSCLES AND BRAIN DO NOT OVERHEAT, BECAUSE HEAT IS CARRIED AWAY FROM THEM BY YOUR BLOOD. THUS BLOOD CAN ACT BOTH AS A HEATER AND A COOLER!



## 10 ON EARTH, BECAUSE OF GRAVITY, A PERSON'S BLOOD USUALLY POOLS IN THE LEGS. LEG VEINS HAVE VALVES THAT HELP THE BLOOD FLOW FROM THE LEGS BACK TO THE HEART. BUT WHEN THERE IS NO GRAVITY, LIKE IN SPACE OR ON THE MOON, BLOOD POOLS IN THE CHEST AND HEAD AND CAUSES ASTRONAUTS TO HAVE STUFFY NOSES, HEADACHES AND PUFFY FACES. IF AN ASTRONAUT STAYS IN SPACE LONG ENOUGH, HIS/HER HEART WOULD ENLARGE SO THAT IT CAN HANDLE THE INCREASED BLOOD FLOW IN THE AREA SURROUNDING IT.



Srikanth K.S is an independent research consultant. He has a doctorate in immunology, and his primary area of interest is in host-pathogen interactions. He can be contacted at sriikis@gmail.com