

VACCINES

BARRIERS

→ WHAT IS A VACCINE?

A VACCINE IS AN ANTIGEN THAT IS INJECTED OR SWALLOWED, WHICH CAUSES THE DEVELOPMENT OF ACTIVE IMMUNITY IN THE PATIENT. THAT STIMULATES THE PRODUCTION OF ANTIBODIES.

THE ACTIVE IMMUNITY THAT VACCINES PRODUCE CAN GIVE PROTECTION FOR A LONG TIME. SOME VACCINES, CALLED BOOSTERS, MAY BE NEEDED AFTER THE INITIAL ONE.



IMMUNITY

I.E.S VALMIÑOR NIGRAN

YOUR BODY HAS A NUMBER OF WAYS OF STOPPING MICROBES FROM GETTING IN.

EYES



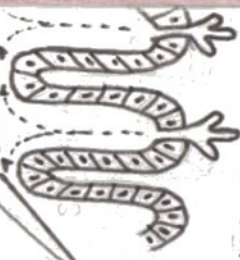
THE TEAR GLANDS MAKE ANTISEPTIC LIQUID THAT KILLS GERMS.

LUNGS



YOUR AIR PASSAGES HAVE CELLS THAT MAKE MUCUS.

STOMACH



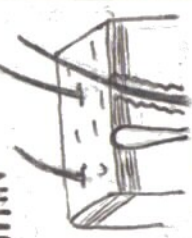
ACID MADE BY THE LINING OF YOUR STOMACH KILLS GERMS IN YOUR FOOD.

HAIR FOLICLES



GLANDS IN YOUR SKIN MAKE AN ANTISEPTIC OIL.

SKIN



THE DEAD, OUTER LAYER OF YOUR SKIN FORMS A BARRIER TO GERMS.

CUTS



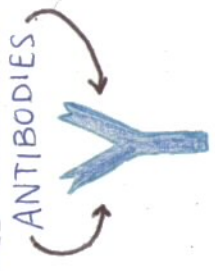
IF YOU GET CUT YOUR BLOOD CLOTS AND A SCAB FORMS, THIS STOPS THE GERMS FROM GETTING IN.

WHAT IS IMMUNITY?

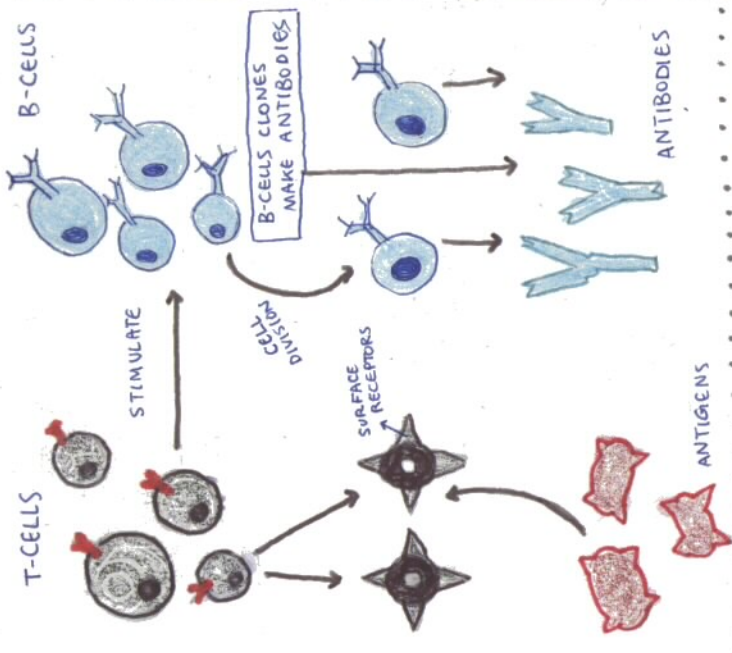
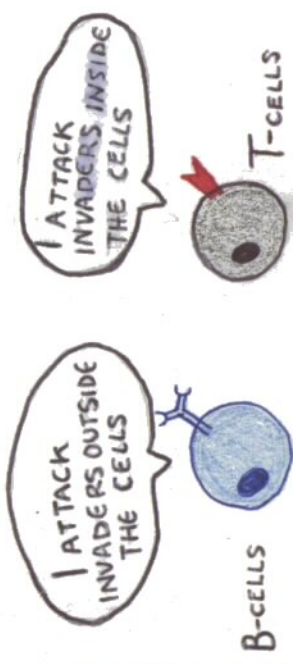
ALL GERMS HAVE CHEMICALS ON THEIR SURFACE CALLED ANTIGENS.



WHEN YOU CATCH A DISEASE YOUR BODY MAKES CHEMICALS CALLED ANTIBODIES



EACH TYPE OF GERM HAS A DIFFERENT ANTIGEN. SO EACH KIND OF GERM CAN ONLY BE DESTROYED BY A CERTAIN KIND OF ANTIBODIES. ONCE YOU HAVE MADE A PARTICULAR ANTIBODY IT STAYS IN YOUR BLOOD FOR A LONG TIME. IT IS READY TO KILL ANY MORE GERMS IF YOU GET THE SAME DISEASE AGAIN. YOU ARE NOW IMMUNE TO THAT PARTICULAR DISEASE.



HOW DO GERMS AFFECT US?

- SYMPTOMS:
- HIGH TEMPERATURE
 - HEADACHE
 - LOSS OF APPETITE
 - SICKNESS

