

# *Hand Washing*

*Does hand washing really get rid of germs that are on our hands?*

# *To wash or not to wash?*

***"MY PARENTS KEEP TELLING ME TO WASH MY HANDS SO I DON'T GET SICK. IS IT REALLY A GOOD THING OR NOT? DOES HAND WASHING DO ANY GOOD BY GETTING RID OF GERMS THAT MIGHT MAKE ME SICK? IF HAND WASHING GETS RID OF GERMS, WHAT IS THE BEST WAY TO WASH MY HANDS?"***

# *Hypothesize*

- ***"I THINK THAT THERE ARE GERMS ON MY HANDS. I BELIEVE THAT WASHING MY HANDS WILL MAKE A DIFFERENCE IN HOW MANY GERMS ARE ON MY HANDS. IF I WASH MY HANDS, I DON'T THINK THERE WILL BE HAS MANY GERMS. I THINK ANTIBACTERIAL SOAP WILL DO THE BEST."***

# Materials



- **ANTIBACTERIAL SOAP**
- **BAGGIES**
- **CAMERA**
- **FOOD FOR GERMS (BLOOD AGAR)**
- **INDEX CARDS**
- **LAMPS**
- **SCOTCH TAPE**
- **SHARPIE MARKER**
- **SOAP**
- **THERMOMETER**
- **TOWELS**
- **WATER**

# Procedures

**MARK A PLATE OF FOOD FOR GERMS AS 'CONTROL' OR 'PURE'. I DIDN'T DO ANYTHING TO THIS BECAUSE I WANTED TO BE ABLE TO TELL THE DIFFERENCE BETWEEN IT AND THE OTHER PLATES OF GERM FOOD THAT I DID DO SOMETHING TO.**

**MARK A PLATE OF FOOD FOR GERMS AS 'UNWASHED HANDS'. I TOUCHED THE GERM FOOD WITH MY FINGERS BEFORE I WASHED MY HANDS.**



***MARK A PLATE OF FOOD FOR GERMS 'WASHED WITH WATER ONLY'. I TOUCHED THE GERM FOOD WITH MY FINGERS AFTER I WASHED MY HANDS WITH WATER ONLY.***



**MARK A PLATE OF FOOD FOR GERMS 'WASHED WITH PLAIN SOAP AND WATER'. I TOUCHED THE GERM FOOD WITH MY FINGERS AFTER I WASHED MY HANDS WITH PLAIN SOAP AND WATER.**



**MARK A PLATE OF FOOD FOR GERMS 'WASHED WITH ANTIBACTERIAL SOAP AND WATER. I TOUCHED THE GERM FOOD WITH MY FINGERS AFTER I WASHED MY HAND WITH ANTIBACTERIAL SOAP.**





***TAPE A COVER ON ALL OF THE PLATES OF FOOD.***

***PUT THE PLATES OF FOOD UNDER A LAMP TO KEEP THEM WARM.***

***PUT A THERMOMETER WITH THEM TO MAKE SURE THEY ARE AT 98 DEGREES.***

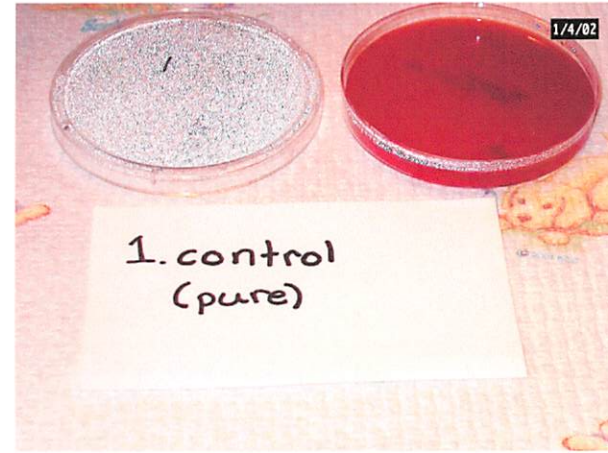


***CHECK TO SEE IF THEY HAVE CHANGED IN ONE OR TWO DAYS.***

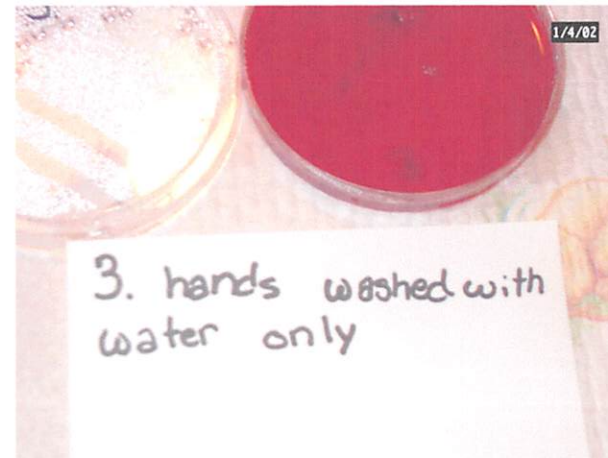
***WASH YOUR HANDS REALLY REALLY GOOD AFTER HANDLING THEM.***

# Results

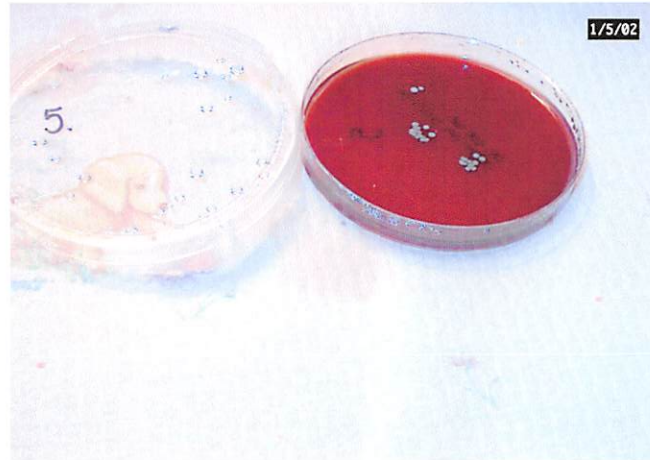
**AFTER ONE DAY I COULD  
SEE THE CONTROL DID  
NOT CHANGE.**



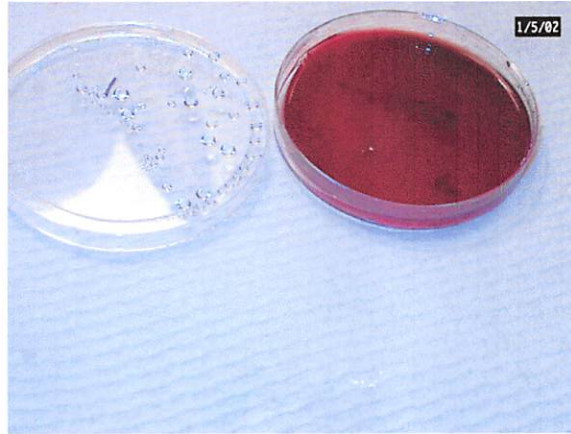
**AFTER ONE DAY I COULD  
SEE GERMS STARTING TO  
GROW ON THE PLATES OF  
FOOD THAT I TOUCHED.**



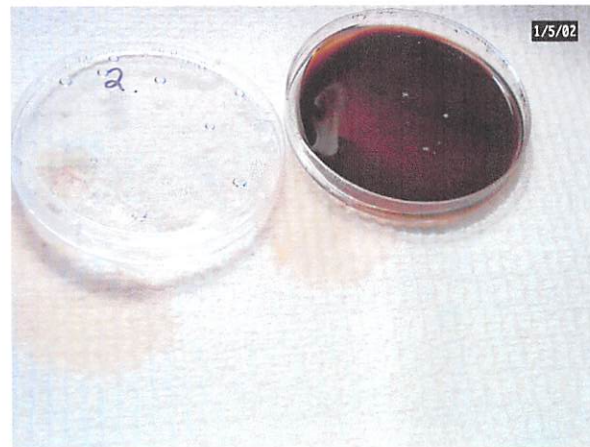
***ON THE SECOND DAY THE PLATE 'WASHED WITH ANTIBACTERIAL SOAP HAD CHANGED FROM RED TO BROWN. I STUCK WORST OF ALL. I COULD TELL EXACTLY WHERE MY FINGER TIPS HAD TOUCHED IT.***

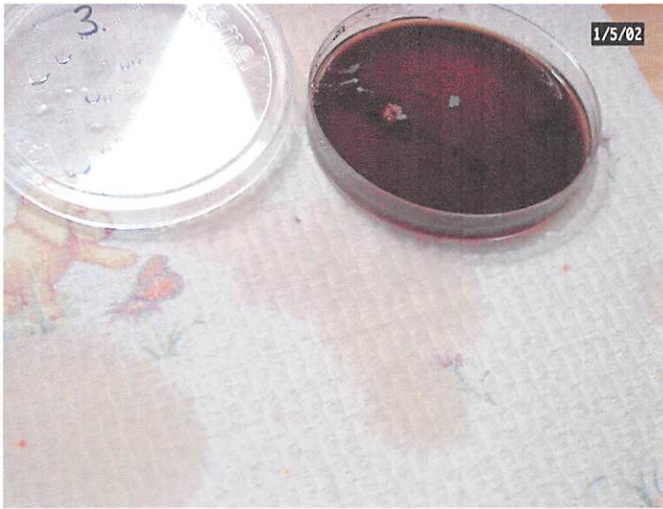


***ON THE SECOND DAY THE CONTROL WAS RED  
IN COLOR. IT DID NOT STINK.***



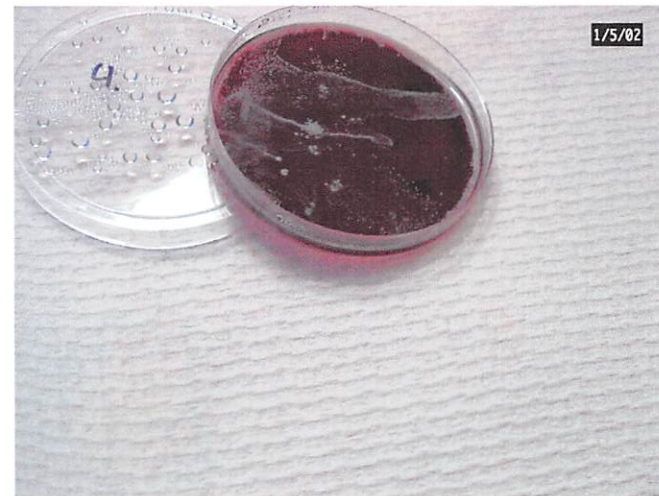
***ON THE SECOND DAY THE PLATE 'UNWASHED HANDS' HAD  
CHANGED FROM RED TO BROWN. IT STUNK.***





**ON THE SECOND DAY THE PLATE  
'WASHED WITH WATER ONLY' HAD  
CHANGED FROM RED TO BROWN.  
IT REALLY STUNK.**

**ON THE SECOND DAY THE PLATE  
'WASHED WITH PLAIN SOAP AND  
WATER' HAD CHANGED FROM RED  
TO BROWN. IT REALLY STUNK. IT  
WAS UGLY TO LOOK AT.**



# *Acknowledgments*

*I would like to thank the following for helping me with my  
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*American Society for Microbiology*

*Glo Germ Company*

*Mrs. Elrod, Baylor Richardson Medical Center*

*My Parents*

# Conclusions

- **NOTHING HAPPENED TO THE CONTROL PLATE OF FOOD.**
- **ALL THE PLATES OF FOOD I TOUCHED TURNED BROWN AND STUNK. THEY ALL HAD STUFF GROWING ON THEM THAT WAS GROSS LOOKING. I WAS RIGHT THAT YOU CAN STILL SPREAD GERMS EVEN IF YOU WASH YOUR HANDS WITH SOAP AND WATER.**
- **I DON'T WANT WHAT I SAW AND SMELLED INSIDE OF ME TO MAKE ME SICK. IT WAS NASTY!! I THINK IF YOU WASH YOUR HANDS LONGER AND BETTER THAT YOU CAN GET RID OF MOST OF THE GERMS.**
- **I LEARNED I WANT TO DO A BETTER JOB OF WASHING MY HANDS.**

Do you think you wash your hands good?

I can help you with Glo-Germ.  
Please ask me to help you check your hand  
washing out!