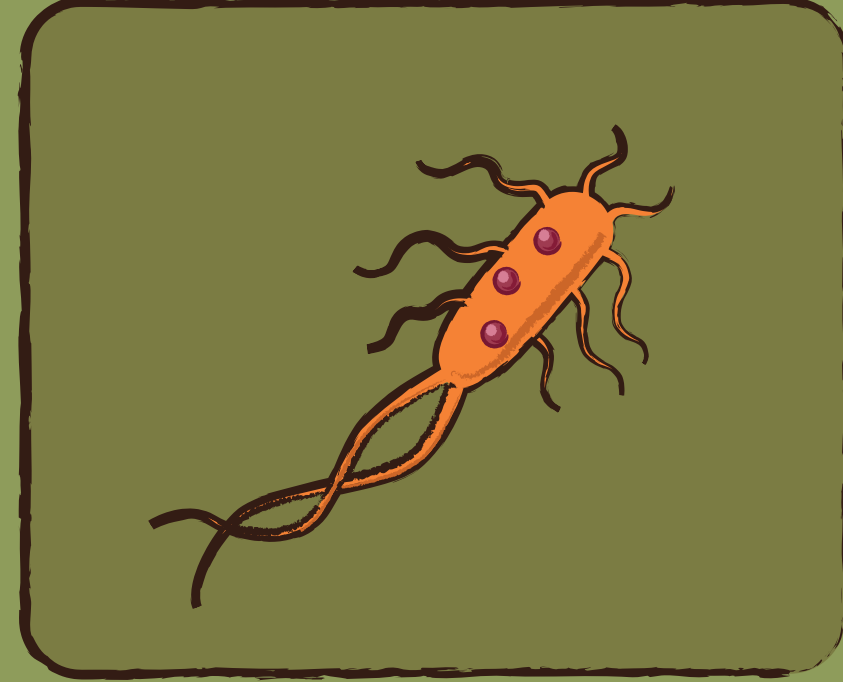


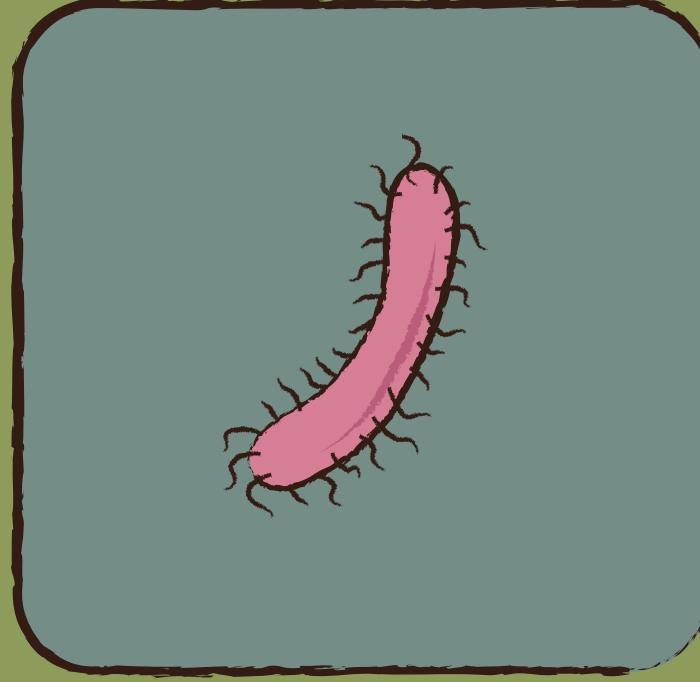
WHY IS DIARRHEA DANGEROUS?

WHEN DIARRHEA KILLS, DEHYDRATION IS TO BLAME. EXCESSIVE LOSS OF WATER CAN IMPACT ORGAN FUNCTION AND QUICKLY BECOME FATAL. BUT HOW DOES DIARRHEA BECOME SO DANGEROUS? FOLLOW DEFEATDD ON A JOURNEY THROUGH THE BODY TO TRACK THE CAUSES AND CONSEQUENCES OF SEVERE DEHYDRATION DUE TO DIARRHEA.

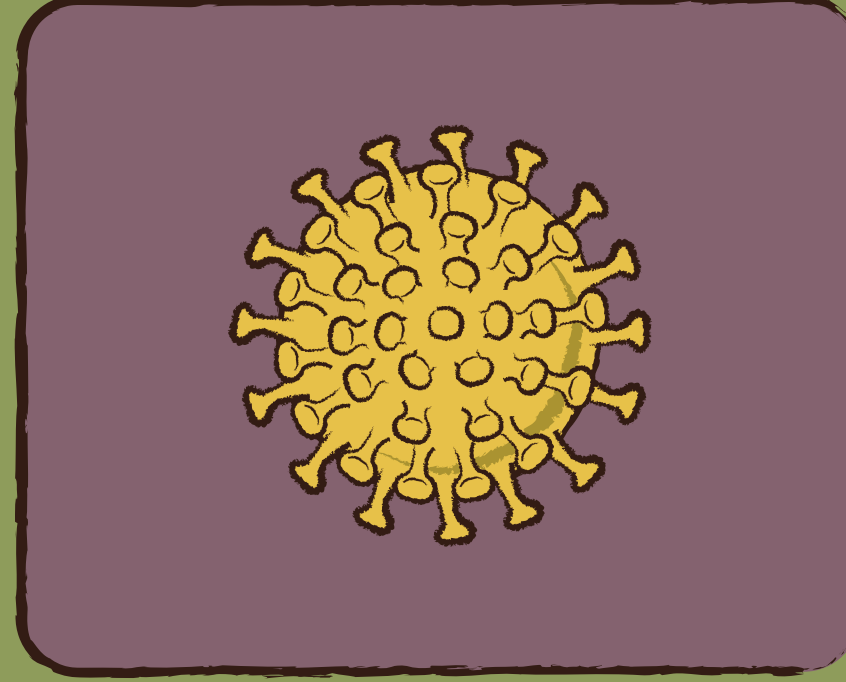
ENTEROTOXIGENIC E. COLI (ETEC)



SHIGELLA



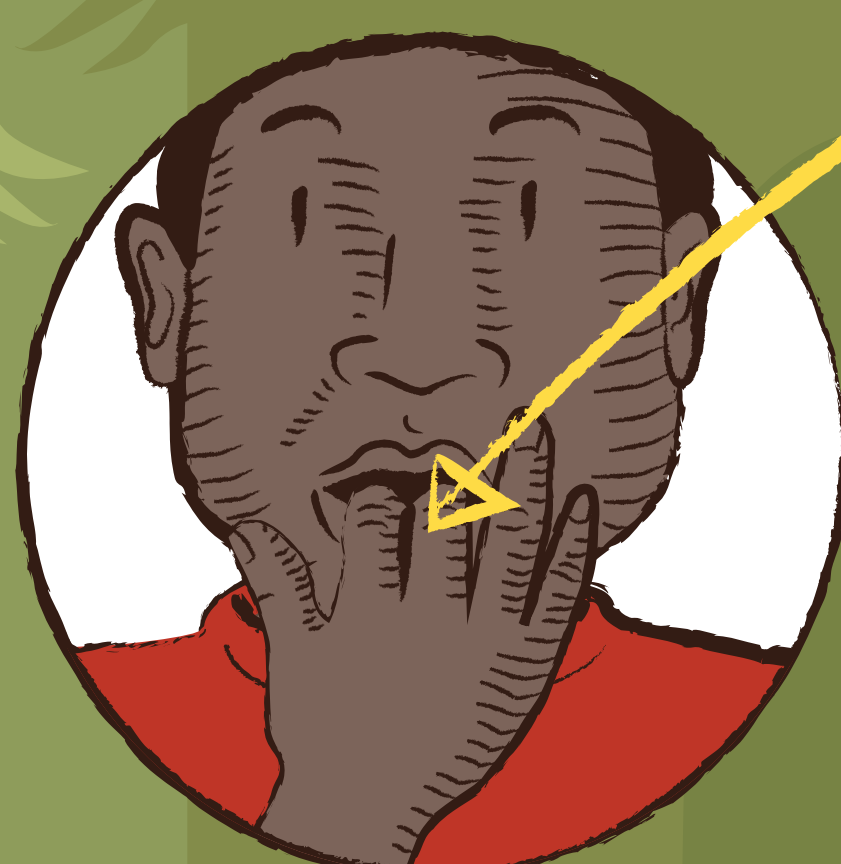
ROTAVIRUS



LET'S FOLLOW THE INFECTION PATHWAY OF ONE OF THESE PATHOGENS:

ENTEROTOXIGENIC E. COLI (ETEC)

1 A PATHOGEN, LIKE ETEC, ENTERS A CHILD'S BODY THROUGH:



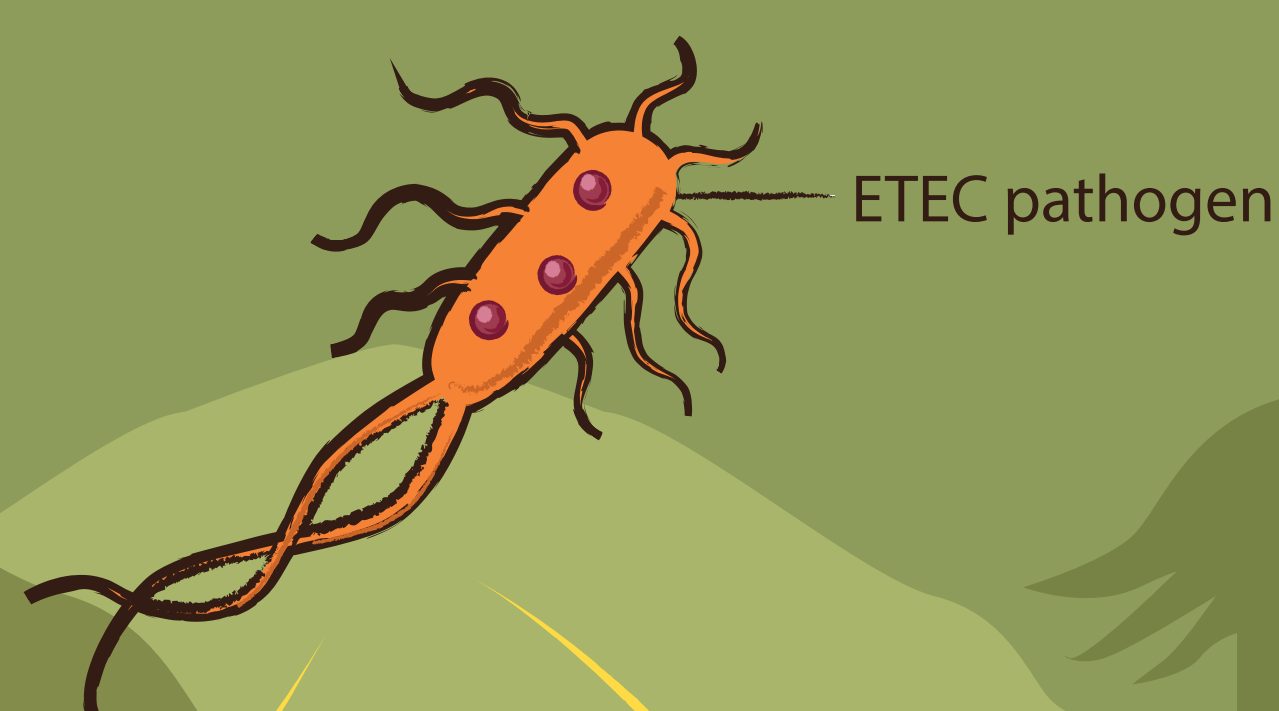
TRANSMISSION FROM HANDS TO MOUTH.



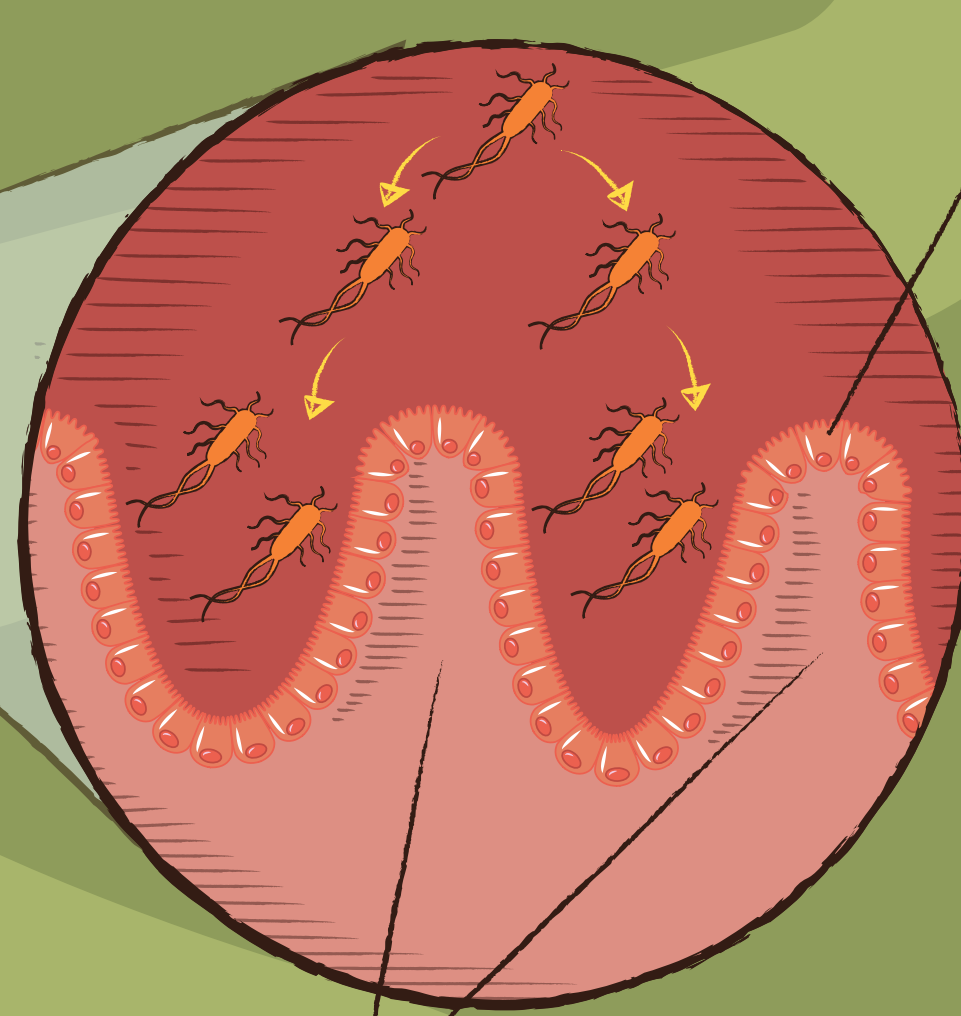
INGESTION OF CONTAMINATED FOOD.



INGESTION OF UNSAFE WATER.



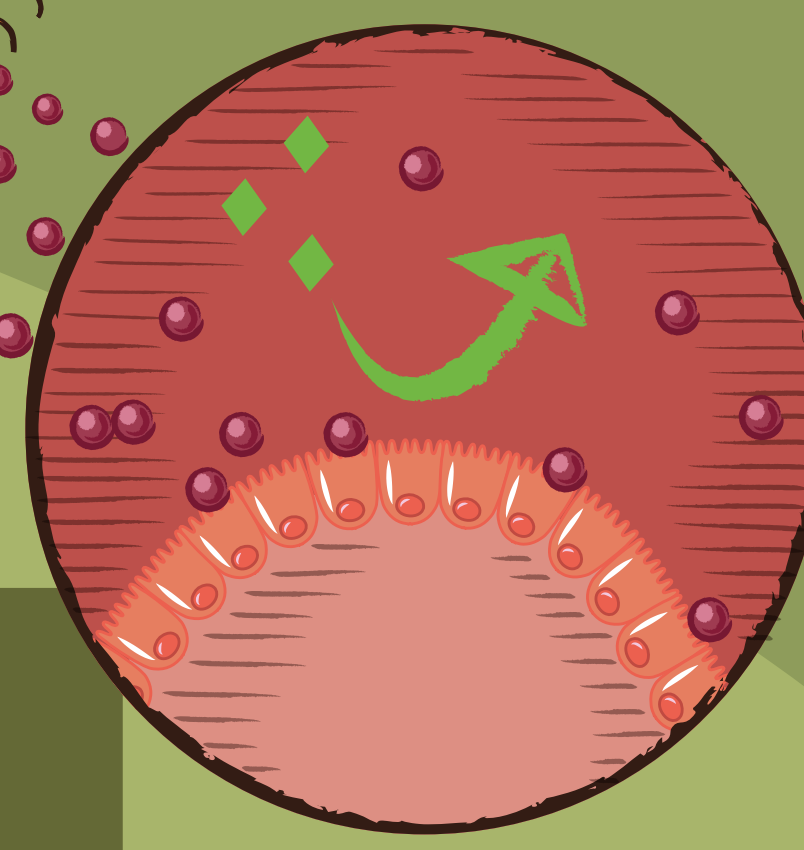
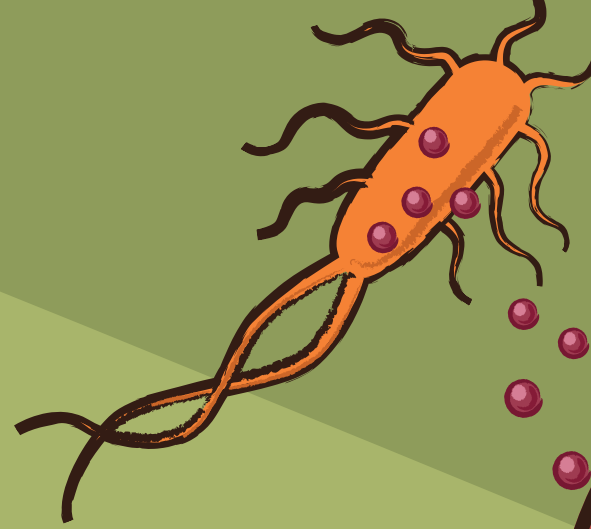
2 IN THE SMALL INTESTINE, ETEC MULTIPLIES...



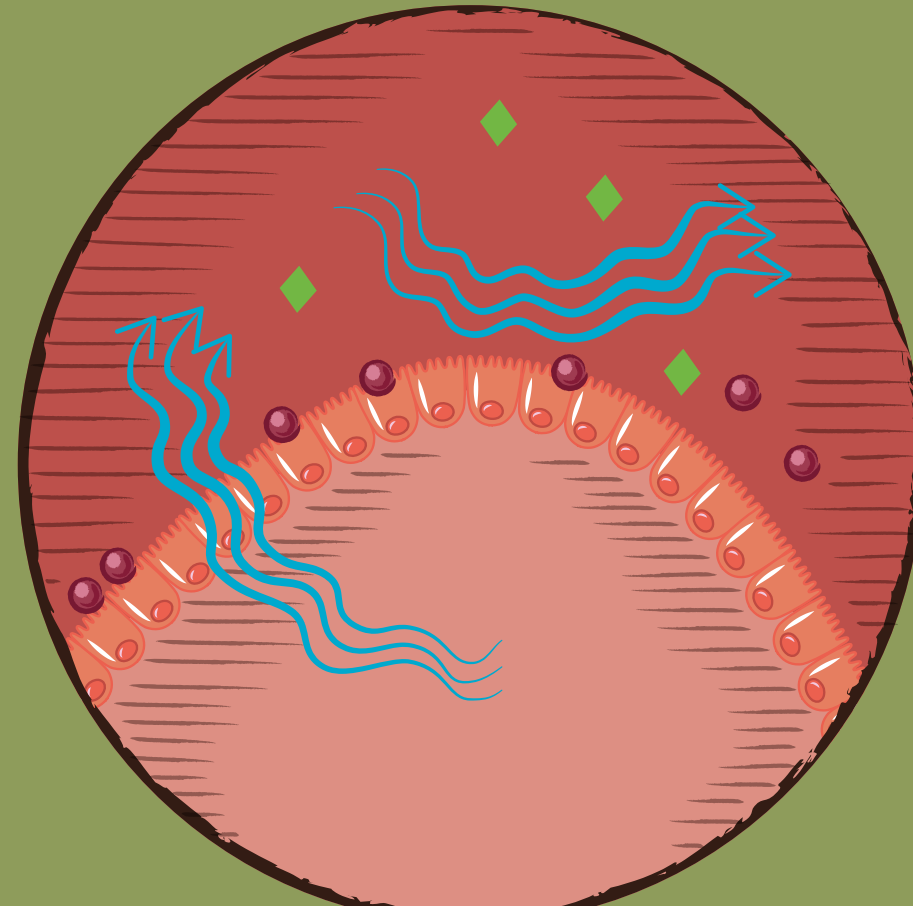
Intestinal lining

Intestinal villi

3 ...AND PRODUCES ENTEROTOXINS THAT BIND TO THE LINING AND PREVENT THE ROUTINE ABSORPTION OF SODIUM.

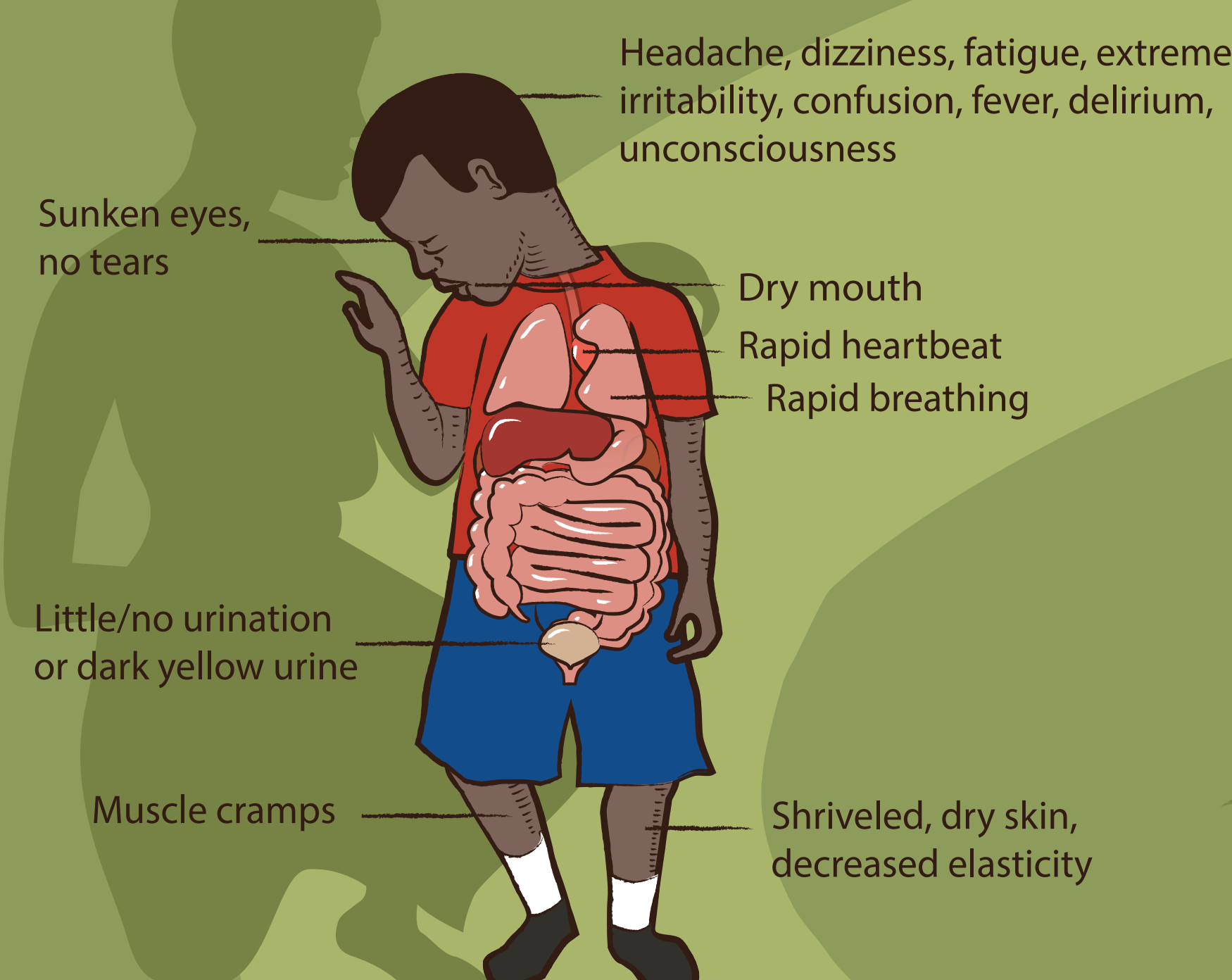


4 WITHOUT SODIUM, THE INTESTINE CANNOT ABSORB WATER THAT THE BODY ROUTINELY SECRETES. WITH NOWHERE ELSE TO GO, THIS WATER RUSHES OUT OF THE BODY IN LARGE AND FREQUENT VOLUMES.



◆ = Sodium
 ~ = Water
 ● = Enterotoxins

SUCH SIGNIFICANT LOSS OF WATER LEADS TO SEVERE DEHYDRATION THAT CAN IMPACT ORGAN FUNCTION AND RAPIDLY BECOME LIFE-THREATENING.



Sunken eyes, no tears

Little/no urination or dark yellow urine

Muscle cramps

Headache, dizziness, fatigue, extreme irritability, confusion, fever, delirium, unconsciousness

Dry mouth
 Rapid heartbeat
 Rapid breathing

Shriveled, dry skin, decreased elasticity

5 IT IS CRITICAL FOR CAREGIVERS TO RECOGNIZE THE SYMPTOMS OF DEHYDRATION SO THEY CAN SEEK URGENT CARE.

But diarrhea—and deadly dehydration—are preventable.

Safe water, sanitation, and hygiene reduce exposure to diarrhea pathogens.



Rotavirus vaccines prevent infection from the deadliest cause of childhood diarrhea.



Zinc treatment reduces the length of a diarrhea episode and prevents future illness.



Breastfeeding and optimal nutrition strengthen the immune system.



Oral rehydration solution (ORS) helps rebalance salt, sugar, and water in the body to speed rehydration and recovery.



Through an integrated approach, we can achieve the greatest impact to defeat diarrheal disease.

Learn more at DefeatDD.org



#DefeatDD

Primary sources

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Dehydration. MedlinePlus Medical Encyclopedia. Bethesda: US National Library of Medicine; 2016. Available at: <https://medlineplus.gov/ency/article/000982.htm>. Accessed August 8, 2016.

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