



HANDWASHING

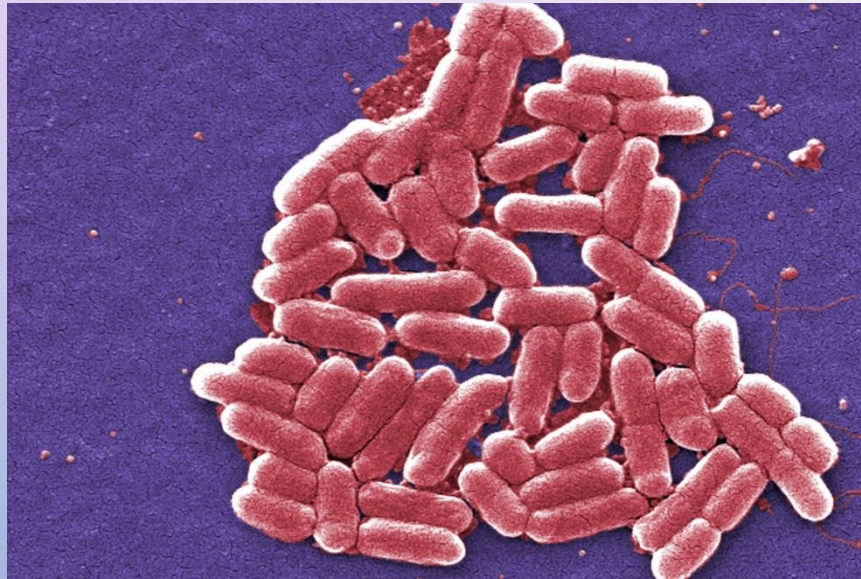
JOHNSON COUNTY HEALTH DEPARTMENT

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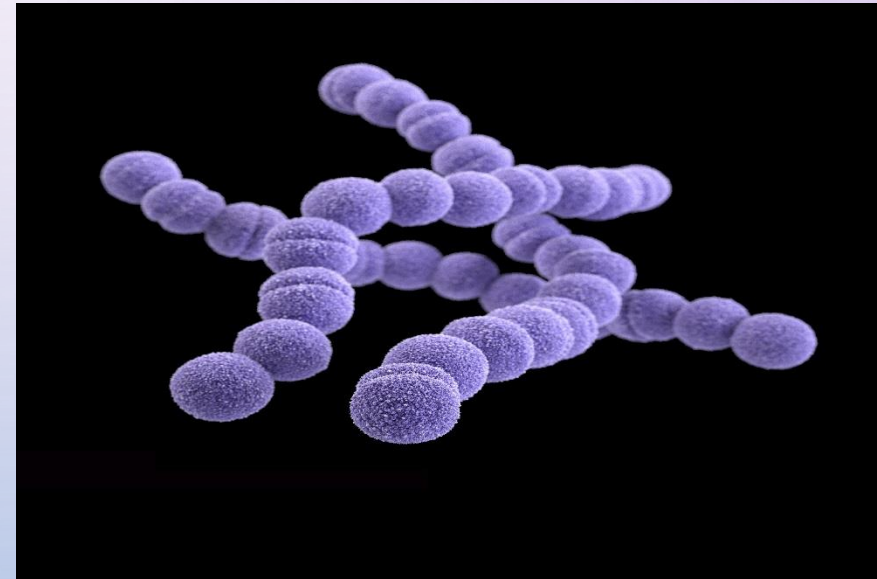
JULY 2017

IMPORTANCE OF HANDWASHING

Removes Microbes and Germs



E. Coli, National Geographic, *Why it's Crucial the New Superbug was in a Urinary Tract Infection*, 1 Jun. 2016. <http://phenomena.nationalgeographic.com/2016/06/01/its-crucial-the-new-superbug-was-in-a-urinary-tract-infection/>



Streptococcus Pyogenes, CDC, *Untreatable: Today's Drug-Resistant Health Threats*, 16 Sept. 2013. <https://www.cdc.gov/media/dpk/antibiotic-resistance/untreatable-drug-resistant-threats/dpk-untreatable-drug-resistant-threats.html>

IMPORTANCE OF HANDWASHING

Most Effective Way to Prevent Spread of Infection



Varma-White, Kavita. Today. *Why a Messy Baby May be Brainier*, 2 Dec. 2013.
<http://www.today.com/parents/why-messy-baby-may-be-brainier-2D11665036>

- Stops germs spread from:
 - Frequently touching face
 - Hands transferring to food
 - Hands transferring to other objects
- Large percentage of foodborne disease outbreaks

IMPORTANCE OF HANDWASHING

Lack of Handwashing Harms Children Worldwide



Gunter, Dr. Jen. Wielding the Lasso of Truth. *What World Pneumonia Day Means to Me*, 12 Nov. 2011. <https://drjengunter.wordpress.com/2011/11/12/what-world-pneumonia-day-means-to-me/>

- Average 1.8 million children less than 5 die annually:
 - Diarrheal disease
 - Respiratory infections
- Handwashing may protect children
 - 1 out of 3 with diarrhea
 - 1 out of 5 with respiratory infections

IMPORTANCE OF HANDWASHING

Helps to Battle Antibiotic Resistance



World Health Organization. *Clean Care is Safer Care*, 5 May 2014.
http://www.who.int/gpsc/5may/EN_PSP_GPSC1_5May_2014/en/

- Prevents illness
 - About 30% of diarrhea-related
 - About 20% of respiratory infections
 - From germs already resistant
- Decreased antibiotic use leads to decreased resistance

IMPORTANCE OF HANDWASHING

How Germs get on Hands



- Human or animal feces
 - May be visible or invisible on hands
 - Single gram of human feces

CDC. Handwashing: Clean Hands Save Lives, 15 Feb. 2017.
<https://www.cdc.gov/handwashing/posters.html>

HANDWASHING EDUCATION

Important for Everyone

Parents to Children



The Village Youth Services, Inc. *Handwashing Fun*, n.d.
<http://www.villageyouth.org/handwashing-fun/>

Healthcare Workers



O'Connor, Anahad. New York Times. *Getting Doctors to Wash Their Hands*, 1 Sep. 2011.
<https://well.blogs.nytimes.com/2011/09/01/getting-doctors-to-wash-their-hands/>

Food Handlers



Hotel Association of India. *HAI Celebrates Hand Hygiene Day*, 2015. <http://hotelassociationofindia.com/handhygieneday.html>

• Community education decreases:

- Diarrhea illness in general by 31%
- Diarrhea illness in immunocompromised by 58%
- Respiratory illness by 16-21%

HOW DISEASES ARE SPREAD



- Handling food or animals
- Shaking hands
- Using the toilet
- Touching shared objects

WHEN TO WASH YOUR HANDS

When Should You Wash Your Hands ?



- Before, during, and after preparing food
- Before eating food
- Before and after caring for someone who is sick
- Before and after treating a cut or wound
- After using the toilet
- After changing diapers or cleaning up a child who has used the toilet
- After blowing your nose, coughing, or sneezing
- After touching an animal, animal feed, or animal waste
- After handling pet food or pet treats
- After touching garbage

- Before:
 - Touching face
 - Inserting or removing contact lenses
- After:
 - Shaking hands
 - Handling money
- Whenever they look dirty

HOW TO WASH YOUR HANDS

- Wet
- Lather
- Scrub
- Rinse
- Dry



<https://youtu.be/qJG72sycQB8>

Leighton-Hilborn, Carolyn. Premie Babies 101.
Good Hand to Hold Hygiene Tips, 4 May 2015.
<http://www.premiebabies101.com/good-hand-to-hold-hygiene-tips/>

HOW TO WASH YOUR HANDS

Wet Hands



CDC. Handwashing: Clean Hands Save Lives, 27 Jan. 2016. <https://www.cdc.gov/handwashing/index.html>

- Clean, running water
 - Standing water may recontaminate
 - Temperature does not affect microbe removal
- Turn off tap
 - Saves water

HOW TO WASH YOUR HANDS

Lather Hands



Mommy Scene. *Healthy Handwashing Tips for Children*, 14 Mar. 2017.
<http://mommyscene.com/healthy-living/1113-healthy-hand-washing-tips-for-children/>

- Apply soap
 - Lifts soil, removes microbes
 - More effective than just water
- Lather
 - Creates friction (lifts dirt, grease)
 - Microbes on all surfaces

HOW TO WASH YOUR HANDS

Scrub Hands



Kreiser, Jennifer. Sentara Health & Wellness. *5 Tips You Should Know About Handwashing*, 1 Dec. 2014. <https://www.sentara.com/healthwellness/data/blogs/5-tips-you-should-know-about-handwashing.aspx>

- At least 20 seconds
 - Sing “Happy Birthday” song twice
- Optimal time dependent on amount and type of soil

HOW TO WASH YOUR HANDS

Rinse Hands



- Under clean, running water
 - Rinse away microbes
 - Rinsing soap minimizes skin irritation
 - Standing water may recontaminate
- Some recommendations: use paper towel to turn off faucet
 - Leads to increased water and paper towel usage

Grobbel, Kelsey. Gordon Food Service. *Effective Hand Hygiene to Prevent the Spread of Germs*, 1 Jan. 2016.
<https://www.gfs.com/en/ideas/effective-hand-hygiene-to-prevent-the-spread-of-germs?vanity=www.gfs.com/en/idea-center/running-your-business/effective-hand-hygiene-to-prevent-the-spread-of-germs>

HOW TO WASH YOUR HANDS

Dry Hands



Garretson, L. Tilde. *Handwashing Steps*, 16 Jan. 2012. <http://www.tildee.com/PTwLB>

- Clean towel or air dry
 - Germs transfer more easily to and from wet hands

ANTIBACTERIAL VS. REGULAR SOAP



Gospel Crusader. *Antibacterial Soaps Don't Help, Could Hurt*, 14 Jan. 2016.
<http://www.gospelcrusader.com/antibacterial-soaps-dont-help-could-hurt/>

- Antibacterial soap:
 - No more effective
 - May lead to resistant bacteria
 - Used in medical setting but not residential

HAND SANITIZER

When and What to Use



- Use if soap and water unavailable
- 60% alcohol
 - More effective than low or non-alcohol
- Non-alcohol based may:
 - Not work well for all germs
 - Cause resistance development
 - Reduce growth instead of kill germs
 - Be more irritating to skin

ACI. Housekeeping Channel. *Stay Clean While Enjoying Outdoor Recreation*, 21 Jan. 2014.
http://www.housekeepingchannel.com/a_1098-Stay_Clean_While_Enjoying_Outdoor_Recreation

HAND SANITIZER

When Not to Use

DOES NOT WORK
ON DIRTY HANDS



Top 10
Home Remedies

Top 10 Home Remedies. *Reasons to Avoid Frequent Use of Hand Sanitizers*, n.d.
<http://www.top10homeremedies.com/news-facts/reasons-avoid-frequent-use-hand-sanitizers.html>

- Soap and water recommended in some circumstances
 - Not effective for visible dirt and grease
 - May not remove harmful chemicals
 - Increased pesticide levels after using hand sanitizer in one study
- Does not kill all germs

HAND SANITIZER

May Cause Alcohol Poisoning

Children Getting Drunk Off Hand Sanitizer

A trend that doesn't seem to be going away

ONE 240 milliliter container has the same alcohol content as FIVE shots of liquor

400% increase in cases of children under 12 drinking hand sanitizer to get drunk

DRINKING HAND SANITIZER CAN CAUSE:

- blindness
- diarrhea
- memory loss
- organ damage

Hand sanitizer purposely contains DENATURED ETHYL ALCOHOL or ethanol to make it UNDRINKABLE

Active ingredient: 63% v/v isopropyl alcohol (AKA: RUBBING ALCOHOL) this percentage is higher than that in vodka

RehabCenter.net

- Older adolescents and adults:
 - Purposefully swallow to become drunk
- Young children:
 - About 85,000 calls to US Poison Control from 2011-2015
 - More likely to swallow scented, brightly colored, or attractively packaged
 - Adult supervision
 - Child-resistant caps

HAND SANITIZER

How to Use



- Apply to palm of one hand
 - Wet hands completely
 - Read product label
- Rub hands together
- Rub over all surfaces until hands dry

REFERENCES

Centers for Disease Control and Prevention. “Handwashing: Clean Hands Save Lives.” *CDC.gov*, 27 Jan. 2016. <https://www.cdc.gov/handwashing/index.html>. Accessed 17 Jul. 2017.

Indiana State Department of Health. “Quick Facts: About...Hand Washing.” *ISDH: Epidemiology Resource Center*, 15 Jun. 2015. http://www.in.gov/isdh/files/2015QuickFact_Hand_washing.pdf. Accessed 17 Jul. 2017.

Mayo Clinic. “Hand-washing: Do’s and Don’ts.” *Mayo Clinic: Healthy Lifestyle, Adult Health*, 14 Oct. 2016. <http://www.mayoclinic.org/healthy-lifestyle/adult-health/in-depth/hand-washing/art-20046253>. Accessed 17 Jul. 2017.