Introduction to Reservoirs: Where Germs Live

Session 1

Body Reservoirs

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CDC's National Training Collaborative for Healthcare Infection Prevention & Control

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Welcome

Agenda

- Welcome and Introductions
- Four Body Reservoirs
- Four Healthcare Environment Reservoirs
- Body and Healthcare Environment Reservoirs: Synthesis

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Four Body Reservoirs

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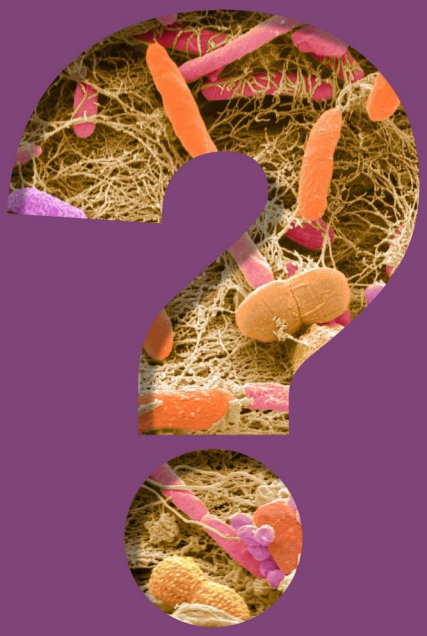
What Do You Think?



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The Body Reservoirs

Skin

Gastrointestinal system (the "gut")

Respiratory system

Blood

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Word Clouds and Discussion

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Skin Word Cloud

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Key Takeaways about the Skin Reservoir

- ✓ Skin, especially hands, interacts with the environment daily.
- ✓ Pathways:
  - Touch
  - Breaking down or bypassing the body's defenses

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GI System Word Cloud

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Key Takeaways about the GI System Reservoir

- ✓ The "gut" usually refers to most of the intestines, rectum, and anus.
- ✓ Gut germs travel easily in stool.
- ✓ Pathways:
  - Touch
  - Breaking down or bypassing the body's defenses

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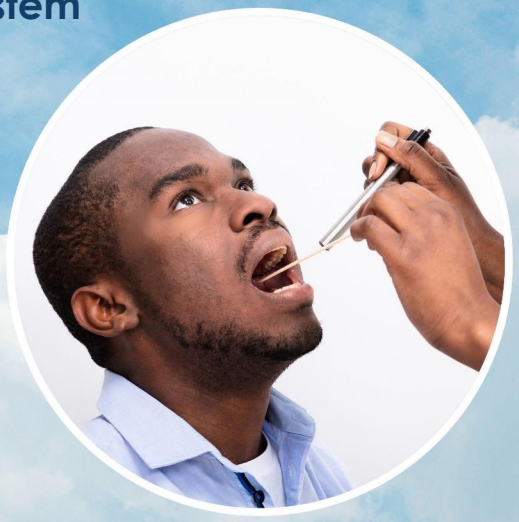
Respiratory System Word Cloud



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Key Takeaways about the Respiratory System Reservoir

- ✓ Upper airway: Nose, mouth, throat, windpipe
- ✓ Lower airway: Lungs
- ✓ Pathways:
  - Breathing in
  - Splashes and sprays
  - Touch

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Blood Word Cloud

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Key Takeaways about the Blood Reservoir

- ✓ Blood is not supposed to have germs in it.
- ✓ Some viruses cause infections that release virus into the blood. If a person is infected and untreated, blood can then spread the virus to other people.
- ✓ Pathways:
  - Breaking down or bypassing the body's defenses
  - Splashes and sprays
  - Touch

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Bringing It Together

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Key Takeaways

- ✓ "Reservoirs" are the places on and in our bodies and in the environment where germs live. Germs frequently spread between and among these reservoirs.
- ✓ Four reservoirs in the human body that are important for infection control are the skin; the gastrointestinal (GI) system or "gut"; the respiratory system; and blood.
- ✓ Understanding where germs live helps us recognize where there is risk for them to be spread, and why infection control actions work to stop them from spreading and making people sick.

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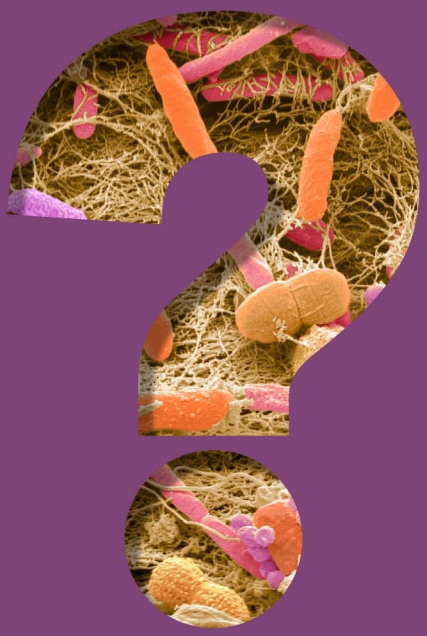
Questions



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Session 2

Healthcare Environment Reservoirs

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Four Healthcare Environment Reservoirs

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Reservoirs in the Healthcare Environment

Water and Wet Surfaces

Sinks and faucets
Drains
Ice machines
Therapy pools

Dry Surfaces

Bed rails
Door handles
Countertops
Bed curtains

Dirt and Dust

Construction
Maintenance
Repair
Renovation

Devices

Stethoscope
Blood pressure cuff
Endoscope
Artificial hip

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Discussion

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Question

Water and Wet Surfaces

Dry Surfaces

Dirt and Dust

Devices

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Water and Wet Surfaces Reservoir

- Water is used in many ways in healthcare.
- Tap water is safe to drink, but it is not sterile.
- Water and wet surfaces can be good places for germs to grow.

Pathways:

- Touch
- Splashes and sprays
- Breathing in

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Water and Wet Surfaces: Taking Action

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Dry Surfaces Reservoir

- Germs found on the body, in the air, and in stool can also be found on dry surfaces
- Includes "high-touch" surfaces: bed rails, door handles, light switches

Pathways:

- Touch
- Breaking down or bypassing the body's defenses

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Dry Surfaces: Taking Action

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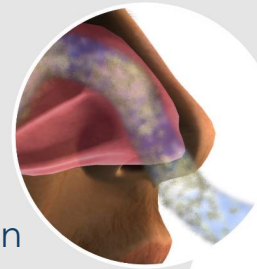
Dirt and Dust Reservoir

- Dirt, soil, and dust from both outdoors and indoors have germs in them that can be carried through the air.
- Germs in dirt and dust can harm certain patients.



Pathways:

- Breathing in
- Touch

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Dirt and Dust: Taking Action

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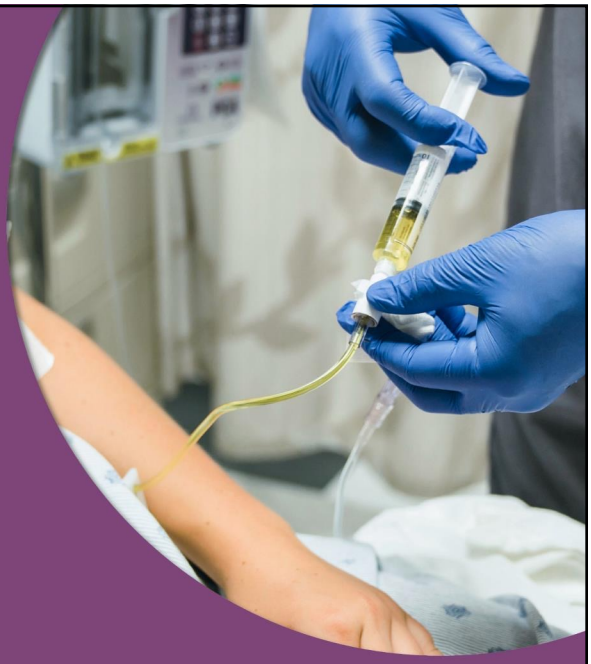
Devices Reservoir

- Often in contact with multiple surfaces and people
- Used **on** a patient's body (stethoscope, blood pressure cuff)
- Used **in** a patient's body (IV needle, endoscope, artificial hip)

Pathways:

- Breaking down or bypassing the body's defenses
- Touch

Devices: Taking Action



Bringing It Together

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Key Takeaways

- ✓ "Reservoirs" are the places on and in our bodies and in the environment where germs live. Germs frequently spread between and among these reservoirs.
- ✓ Four reservoirs in the healthcare environment that are important for infection control are water and wet surfaces; dry surfaces; dirt and dust; and devices.
- ✓ Understanding where germs live helps us recognize where there is risk for them to be spread and why infection control actions work to stop them from spreading and making people sick.

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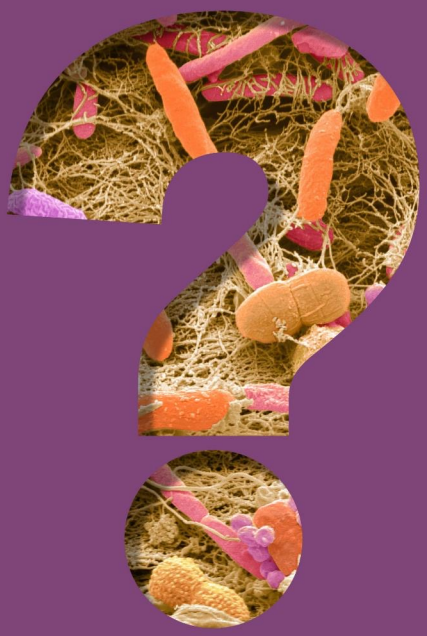
Questions



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Session 3

Body and Healthcare Environment Reservoirs: Synthesis

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Body and Environment Reservoirs

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Reservoir Definition

The places where germs live are called “reservoirs.” There are reservoirs in the human body and in the environment.

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Reservoirs Review

Body


Skin


GI system or "gut"


Respiratory system


Blood

Environment


Water and wet surfaces


Dry surfaces


Dirt and dust


Devices

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What Do You Know?

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How Does It Happen?

- Break out into groups.
- Based on your tables, work together to create a scenario where your assigned reservoirs interact in healthcare.
- Work together to bring one example/scenario back to the group:
  - "In my daily work, I notice [body reservoir] interacting with [environment reservoir] when…"

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Bringing It Together

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Key Takeaways

- ✓ The places where germs live are called "reservoirs." There are reservoirs in the human body and in the healthcare environment.
- ✓ Infection control actions are connected to how germs can be spread to and from these reservoirs to different areas of the body, from one person to another, from people to things, or things to people.
- ✓ Knowing where germs live and how they can be spread can help you understand why infection control actions work to stop them from making people sick.

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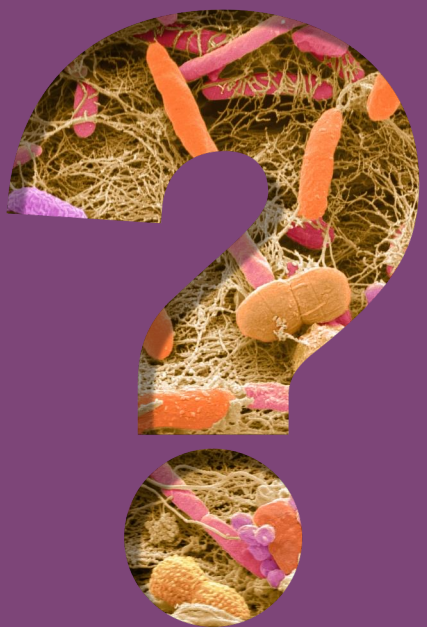
Questions



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How to Get Involved and Feedback

- Project Firstline on CDC.gov: https://www.cdc.gov/infectioncontrol/projectfirstline/index.html
- CDC's Project Firstline on Facebook: https://www.facebook.com/CDCProjectFirstline
- CDC's Project Firstline on Twitter: https://twitter.com/CDC_Firstline
- Project Firstline *Inside Infection Control* on YouTube: https://www.youtube.com/playlist?list=PLvrp9iOILTQZQGtDnSDGViKDdRtIc13VX
- To sign up for Project Firstline e-mails, click here: https://tools.cdc.gov/campaignproxyservice/subscriptions.aspx?topic_id=USCDC_2104

- Project Firstline feedback form: https://www.cdc.gov/infectioncontrol/pdf/projectfirstline/TTK-ParticipantFeedback-508.pdf
- Placeholder for partners to add their own links