

# Extended Spectrum Beta Lactamase (ESBL) - producing bacteria

## What is ESBL?

ESBL stands for extended spectrum beta-lactamase-producing bacteria. These bacteria produce enzymes that can break down many common antibiotics and make them ineffective in fighting infections caused by the bacteria.

## What if I am colonized with ESBL?

If you are colonized with ESBL, these bacteria may live in your bowel or urine but are not causing any illness. Treatment to get rid of the bacteria is not recommended, as it is not likely to be successful and may result in the development of further antibiotic resistance. Some people can remain colonized for up to a year and then get rid of the organism on their own. People who are colonized should practice good hand hygiene, especially after using the toilet, as they could potentially contaminate surfaces in their environment.

## Who is likely to get an ESBL infection?

Healthy people do not usually become colonized with ESBL; hospitalized patients and residents of a long-term care home are more at risk. ESBL can cause urinary tract infections, wound infections or pneumonia. These infections occur when the bacteria enter the urinary tract, a break in the skin or the bloodstream. Infection is uncommon however, and is usually only seen in the following people:

- The critically ill
- Those with weakened immune systems
- Those with a low functional level
- Those who have been admitted to a long-term care home or hospital
- Those who have been on many antibiotics

## How is ESBL treated?

ESBL infections are difficult to treat and require a combination of antibiotics which are not always effective. Your doctor will decide what the most appropriate course of treatment is for you.

For further information, please call:

**York Region Health Connection 1-800-361-5653**

TTY 1-866-252-9933 or visit [www.york.ca](http://www.york.ca)

## How is ESBL spread?

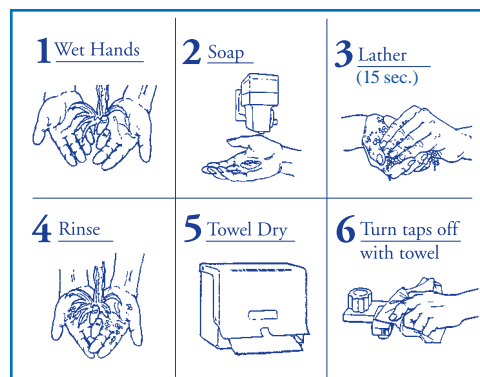
ESBL is found in stool and is transmitted from one person to another by direct contact (unwashed hands). Transmission through indirect contact (touching surfaces contaminated with the germ) can occur but is less likely to happen. When you touch your mouth or eat with contaminated hands, the bacteria are swallowed and then may live in your digestive tract. ESBL is **not** spread through the air.

## What can be done to stop the spread of ESBL?

**1. Practice good hand hygiene.** This is the most effective way to stop the spread as ESBL is mainly spread by unwashed hands.

**a. Wash hands frequently for at least 15 seconds using the 6-step method, and especially:**

- After visiting the washroom
- Before handling, preparing, serving or eating food
- When hands look or feel dirty
- After blowing your nose, coughing or sneezing
- When providing care to an ill person
- When visiting a hospital or long-term care home



**OR**

**b. Use a hand sanitizer** when handwashing facilities are not available and hands are not visibly soiled. When using a hand sanitizer, apply enough to wet the entire hand and rub solution into hands until completely dry.

**2. Clean the environment.** In addition to practicing good hand hygiene, thoroughly clean the person's environment (bedroom, bathroom, equipment) to prevent further spread of the organism. Use an all purpose household cleaner and follow the directions on the label.

**Be sure to:**

- Remove any visible feces (stool) **prior** to starting the cleaning process
- Always clean in the direction of **least soiled to heaviest soiled areas**
- Wet the surface well and clean using good **friction**
- Pay special attention to frequently touched surfaces and areas that may be soiled with feces such as the toilet and sink. For heavily soiled areas you may want to disinfect the area using a solution of 5 ml (1 teaspoon) of household bleach mixed with one litre of water. Apply the solution to the surface after cleaning and allow surface to air dry

**Note: No special precautions are required for handling dishes or waste**

**3. Clean Clothes/Fabric.** Wash clothes/fabric separately if they are heavily soiled with feces:

- Rinse off feces
- Clean in a hot water cycle with soap
- Dry items in the dryer on high heat if possible
- Dry clean where appropriate

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**4. Use Antibiotics Wisely.** To limit the development of new antibiotic resistant organisms, we all have to use antibiotics properly. It is important to:

- **Finish any antibiotics prescribed for you**, even if you feel better before they are gone. If you do not take all of your antibiotics, some of the stronger bacteria will not be killed and these may develop antibiotic resistance
- **Use antibiotics only for serious bacterial infections.** Antibiotics do not kill viruses like influenza (the “flu”) and the common cold, and so you should not take antibiotics for them. By taking an antibiotic when it is not needed, you could be helping the bacteria in your body to develop resistance to that antibiotic
- **Only take antibiotics prescribed for you;** do not share them with others who have a similar illness

## Can people with ESBL have visitors?

**Yes.** Restrictions on activities or visitors at home or in the community are not necessary.

- If you are visiting a person with ESBL in hospital or a long-term care home, you may be asked by staff to wear gloves and gown before having contact with the person or his/her environment. This will reduce the chance of your spreading the germ to others. It is very important to perform hand hygiene after visiting these facilities. Wash your hands using the six-step method or use a hand sanitizer if hands are not visibly soiled
- When visiting health care providers in the community (doctor, nurse, physiotherapist), tell them about your ESBL so they can take the appropriate precautions (e.g. handwashing, use of gloves)

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