

DUKORAL® is a **drinkable vaccine** that helps prevent diarrhea caused by heat-labile toxin-producing enterotoxigenic *E. coli* (LT-producing ETEC), as well as cholera. This vaccine may be given to adults and children 2 years of age and older.

ASK YOUR HEALTHCARE PROFESSIONAL ABOUT TAKING DUKORAL® AT LEAST 2 WEEKS BEFORE TRAVELLING.





Enterotoxigenic *E. coli* (ETEC) is one of the most common causes of diarrhea for travellers to many parts of the world.



Enterotoxigenic *E. coli* (ETEC) diarrhea can spread very easily from person to person.



Annually, ETEC is estimated to cause 220 million diarrheal episodes and approximately 380,000 deaths worldwide.



If you eat food or drink water or ice that is contaminated with ETEC, you are at risk of getting ETEC diarrhea.

98% of travellers have been shown to make a food or water mistake within the first 3 days of their vacation:

- Drinking beverages with ice cubes or crushed ice
- Brushing teeth with tap water
- Consuming salads and uncooked vegetables
- Eating fruits which cannot be peeled
- Sampling local cuisine from street vendors

A STUDY SHOWED THAT TRAVELLERS AFFECTED BY ETEC DIARRHEA LOSE AN AVERAGE OF 3.5 DAYS OF VACATION TIME.

† ETEC produces two toxins: a heat-stable toxin (ST) and/or a heat-labile toxin (LT). Globally, it is estimated that 60% of ETEC strains produce an LT. DUKORAL® confers protection specific to LT-producing ETEC. DUKORAL® has not been demonstrated to protect against ETEC strains that do not produce LT.

LT-ETEC diarrhea can seriously interfere with your travel plans

LT-ETEC diarrhea can last for a few days, keep you in bed, require medical treatment, and result in:

Nausea

- Loss of appetite
- Vomiting
- Headache
- Abdominal cramps
- Muscle aches

Fever

Bloating

Chills

A study assessed the cost of travellers' diarrhea caused by ETEC

The average cost of an episode of travellers' diarrhea was estimated to be **US \$1,460**:

an average of 3.5 days lost

more than **\$400 per day** in travel, time and medical costs

= US \$1,460

IT'S YOUR TIME AND MONEY.



Am I at risk?

If you're travelling to a high-risk area, you should consider the threat of LT-ETEC diarrhea.

Incidence of heat-labile toxin producing enterotoxigenic *E. coli* (LT-ETEC)



	Latin America/ Caribbean	Africa	South Asia	Southeast Asia
ETEC	34%	31%	31%	7%
LT-producing ETEC*	69%	49%	63%	n.a.

* LT-producing ETEC: ETEC strains expressing LT alone or both LT and ST enterotoxins together (proportion among collected ETEC isolates)



Infection with ETEC is the leading cause of diarrhea during travel in many developing countries, resulting in an estimated one third of cases of diarrhea in travellers to Latin America and the Caribbean, Africa and South Asia.



Populations with increased susceptibility and higher risk for more severe disease caused by LT-ETEC include:

- People with achlorhydria (absence of gastric acid secretion)
- People with previous gastrectomy (removal of part or all of the stomach)
- · People with a history of repeated severe diarrhea
- Young children aged >2 years
- People with immunodeficiency disorders

Natural immunity decreases over time. Even if you were born in a high-risk area, you should protect yourself.



LT-ETEC diarrhea can be prevented

What can you do?

- 1. Get vaccinated with DUKORAL®
- 2. Watch what you eat, drink and do

Don't drink:



Tap water



Drinks with ice cubes

 Including alcoholic beverages served or shaken with ice cubes



Drinks with crushed ice

Don't eat:



Fruits that can't be peeled



Uncooked vegetables, including salad



Undercooked or raw meat or fish



Unpasteurized or unrefrigerated dairy products



Food sold by street vendors

Diarrhea caused by LT-ETEC can easily spread.

- · Wash your hands frequently
- Brush your teeth with treated or bottled water
- · Avoid swimming in polluted or contaminated water
- · Wipe cans and bottles before opening them





Taking DUKORAL® before your trip

To help prevent diarrhea caused by LT-producing enterotoxigenic *E. coli* (LT-ETEC)

Store in refrigerator – DO NOT FREEZE

☐ IF YOU ARE TAKING DUKORAL® FOR THE FIRST TIME:



FIRST DOSE

at least 2 weeks **before your departure.**

Date:



SECOND DOSE

at least 1 week **after the first dose** and at least 1 week **before your departure.** (Do not take your 1st and 2nd dose more than 6 weeks apart.)

Date:



TRIP

Protection starts 1 week after the 2rd dose and lasts for about **3 months**.

☐ IF YOU HAVE TAKEN DUKORAL® BEFORE AND ARE TRAVELLING AGAIN:

- If it has been less than 5 years, a single dose renews your protection
- If it has been more than 5 years since the last dose,
 2 doses are needed again to renew protection

Storage and stability



STORE IN THE REFRIGERATOR at 2° to 8°C (35° to 46°F)

DO NOT FREEZE

Do not use after expiry date. DIN 02247208

What you need:







Glass of water (5 oz/150 mL)



- White sachet of powder

- Glass vial of vaccine

How to prepare DUKORAL®

Do not eat, drink any other liquids (including water) or take any other medication 1 hour before and 1 hour after taking DUKORAL®



STEP 1 – To prepare the buffer solution:

Open the white sachet of powder and pour into 150 mL (5 oz.) of cool water. Stir gently with spoon to dissolve. Do not use any other liquid. For kids 2–6 years of age, pour away half of the powder/water mixture before Step 2 (keep 75 mL, approx. 2.5 oz.)



STEP 2

Shake the glass vial of vaccine to mix it well (1 vial = 1 dose).



STEP 3 – To prepare the vaccine mixture:

Open the glass vial from Step 2 and pour the vaccine into the glass containing the powder/water mixture from Step 1. Stir gently with spoon to mix all ingredients.



STEP 4

Drink the entire contents of the glass immediately, as it should be consumed within 2 hours of its preparation. If not consumed immediately, keep at room temperature.

Do not eat or drink anything, including water, for 1 hour after taking DUKORAL®.



For a video demonstration and additional information, please visit DukoralCanada.com



Who should take DUKORAL®?

DUKORAL® is:

- An oral vaccine that is used to help prevent diarrhea caused by enterotoxigenic E. coli (LT-ETEC) producing a heat-sensitive toxin (called LT) and/or cholera.
 The enterotoxigenic E. coli (ETEC) bacterium is one of the most common causes of diarrhea in travellers in many parts of the world.
- This vaccine may be given to adults and children
 2 years of age and older.

Who shouldn't take DUKORAL®?

DUKORAL® is not recommended for:

- Use in pregnancy; if you are pregnant, your doctor will discuss the possible risks and benefits of having DUKORAL® during pregnancy
- Travellers experiencing acute gastrointestinal illness (e.g., diarrhea) or high temperature
- People with an allergy or hypersensitivity to any component of DUKORAL® or to formaldehyde

Talk to your doctor, nurse or pharmacist if you are not sure whether you or your child should take DUKORAL®.

Ask your healthcare professional about DUKORAL®



DUKORAL® is available without a prescription* at your pharmacy and travel clinic.

The cost of DUKORAL® may be covered by your private insurance. To find out if you are covered, contact your insurance provider and give the drug identification number (DIN) below.

DIN 02247208

The only oral vaccine for protection against enterotoxigenic *Escherichia coli* (LT-ETEC) diarrhea, DUKORAL® is suitable for people as young as 2 years old. The first dose of DUKORAL® should be taken 2 weeks before departure, and the second should be taken 1 week before departure. DUKORAL® provides about 3 months of protection against enterotoxigenic *E. coli* (LT-ETEC).

* In Quebec, DUKORAL® may be prescribed by your doctor, pharmacist or nurse.





2 weeks before you leave for 3 months protection

WHATEVER YOU'RE PLANNING, YOUR VACATION IS NOT A GOOD TIME FOR HEAT-LABILE TOXIN-PRODUCING ETEC DIARRHEA.



DUKORAL* does not treat diarrhea caused by enterotoxigenic *E. coli* once it develops. DUKORAL* will only protect against cholera and LT-producing enterotoxigenic *E. coli* (LT-ETEC). Not everyone who gets vaccinated will be fully protected. Therefore, precautions to avoid contaminated food or water should be taken. Allergic reactions and side effects such as abdominal pain, diarrhea, fever, nausea and vomiting may occur. Rehydration measures should be taken in case of diarrhea.







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