

## E. Coli Overview

Escherichia coli (E. coli) bacteria normally live in the intestines of healthy people and animals. Most types of E. coli are harmless or cause relatively brief diarrhea. But a few strains, such as E. coli O157:H7, can cause severe stomach cramps, bloody diarrhea and vomiting. You may be exposed to E. coli from contaminated water or food — especially raw vegetables and undercooked ground beef. Healthy adults usually recover from infection with E. coli O157:H7 within a week. Young children and older adults have a greater risk of developing a life-threatening form of kidney failure.

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### Symptoms

Signs and symptoms of E. coli O157:H7 infection usually begin three or four days after exposure to the bacteria. But you may become ill as soon as one day after exposure to more than a week later. Signs and symptoms include:

- Diarrhea, which may range from mild and watery to severe and bloody
  - Stomach cramping, pain or tenderness
  - Nausea and vomiting, in some people
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### Causes

Only a few strains of E. coli trigger diarrhea. The E. coli O157:H7 strain belongs to a group of E. coli that produces a powerful toxin that damages the lining of the small intestine. This can cause bloody diarrhea. You develop an E. coli infection when you ingest this strain of bacteria. Unlike many other disease-causing bacteria, E. coli can cause an infection even if you ingest only small amounts. Because of this, you can be sickened by E. coli from eating a slightly undercooked hamburger or from swallowing a mouthful of contaminated pool water. Potential sources of exposure include contaminated food or water and person-to-person contact.

### Contaminated food

The most common way to get an E. coli infection is by eating contaminated food, such as:

- **Ground beef.** When cattle are slaughtered and processed, E. coli bacteria in their intestines can get on the meat. Ground beef combines meat from many different animals, increasing the risk of contamination.

- **Unpasteurized milk.** E. coli bacteria on a cow's udder or on milking equipment can get into raw milk.
- **Fresh produce.** Runoff from cattle farms can contaminate fields where fresh produce is grown. Certain vegetables, such as spinach and lettuce, are particularly vulnerable to this type of contamination.

## Contaminated water

Human and animal stool may pollute ground and surface water, including streams, rivers, lakes and water used to irrigate crops. Although public water systems use chlorine, ultraviolet light or ozone to kill E. coli, some E. coli outbreaks have been linked to contaminated municipal water supplies.

Private water wells are a greater cause for concern because many don't have a way to disinfect water. Rural water supplies are the most likely to be contaminated. Some people also have been infected with E. coli after swimming in pools or lakes contaminated with stool.

## Personal contact

E. coli bacteria can easily travel from person to person, especially when infected adults and children don't wash their hands properly. Family members of young children with E. coli infection are especially likely to get it themselves. Outbreaks have also occurred among children visiting petting zoos and in animal barns at county fairs.

## Risk factors

E. coli can affect anyone who is exposed to the bacteria. But some people are more likely to develop problems than are others. Risk factors include:

- **Age.** Young children and older adults are at higher risk of experiencing illness caused by E. coli and more-serious complications from the infection.
- **Weakened immune systems.** People who have weakened immune systems — from AIDS or from drugs to treat cancer or prevent the rejection of organ transplants — are more likely to become ill from ingesting E. coli.
- **Eating certain types of food.** Riskier foods include undercooked hamburger; unpasteurized milk, apple juice or cider; and soft cheeses made from raw milk.
- **Time of year.** Though it's not clear why, the majority of E. coli infections in the U.S. occur from June through September.
- **Decreased stomach acid levels.** Stomach acid offers some protection against E. coli. If you take medications to reduce stomach acid, such as esomeprazole (Nexium), pantoprazole (Protonix), lansoprazole (Prevacid) and omeprazole (Prilosec), you may increase your risk of an E. coli infection.

# Mold Allergy Overview

If you have a mold allergy, your immune system overreacts when you breathe in mold spores. A mold allergy can cause coughing, itchy eyes and other symptoms that make you miserable. In some people, a mold allergy is linked to asthma and exposure causes restricted breathing and other airway symptoms.

If you have a mold allergy, the best defense is to reduce your exposure to the types of mold that cause your reaction. Medications can help keep mold allergy reactions under control.

## Symptoms

A mold allergy causes the same signs and symptoms that occur in other types of upper respiratory allergies. Signs and symptoms of allergic rhinitis caused by a mold allergy can include:

- Sneezing
- Runny or stuffy nose
- Cough and postnasal drip
- Itchy eyes, nose and throat
- Watery eyes
- Dry, scaly skin

Mold allergy symptoms vary from person to person and range from mild to severe. You might have year-round symptoms or symptoms that flare up only during certain times of the year. You might notice symptoms when the weather is damp or when you're in indoor or outdoor spaces that have high concentrations of mold.

## Mold allergy and asthma

If you have a mold allergy and asthma, your asthma symptoms can be triggered by exposure to mold spores. In some people, exposure to certain molds can cause a severe asthma attack.

Signs and symptoms of asthma include:

- Coughing
- Wheezing
- Shortness of breath
- Chest tightness

## Causes

Like any allergy, mold allergy symptoms are triggered by an overly sensitive immune system response. When you inhale tiny, airborne mold spores, your body recognizes them as foreign invaders and develops allergy-causing antibodies to fight them.

Exposure to mold spores can cause a reaction right away, or the reaction can be delayed.

Various molds are common indoors and outdoors. Only certain kinds of mold cause allergies.

Being allergic to one type of mold doesn't mean you'll be allergic to another. Some of the most

common molds that cause allergies include alternaria, aspergillus, cladosporium and penicillium.

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## Risk factors

A number of factors can make you more likely to develop a mold allergy or worsen your mold allergy symptoms, including:

- **Having a family history of allergies.** If allergies and asthma run in your family, you're more likely to develop a mold allergy.
- **Working in an occupation that exposes you to mold.** Occupations where mold exposure can be high include farming, dairy work, logging, baking, millwork, carpentry, greenhouse work, winemaking and furniture repair.
- **Living in a house with high humidity.** Having indoor humidity higher than 50% can increase mold in your home.  
Mold can grow virtually anywhere if the conditions are right — in basements, behind walls in framing, on soap-coated grout and other damp surfaces, in carpet pads, and in the carpet itself. Exposure to high levels of household mold can trigger mold allergy symptoms.
- **Working or living in a building that's been exposed to excess moisture.** Examples include leaky pipes, water seepage during rainstorms and flood damage. At some point, nearly every building has some kind of excessive moisture, which can encourage mold growth.
- **Living in a house with poor ventilation.** Tight window and door seals can trap moisture indoors and prevent proper ventilation, creating ideal conditions for mold growth. Damp areas — such as bathrooms, kitchens and basements — are most vulnerable.

# Anxiety Overview

Experiencing occasional anxiety is a normal part of life. However, people with anxiety disorders frequently have intense, excessive and persistent worry and fear about everyday situations. Often, anxiety disorders involve repeated episodes of sudden feelings of intense anxiety and fear or terror that reach a peak within minutes (panic attacks).

These feelings of anxiety and panic interfere with daily activities, are difficult to control, are out of proportion to the actual danger and can last a long time. You may avoid places or situations to prevent these feelings. Symptoms may start during childhood or the teen years and continue into adulthood.

## Symptoms

- Feeling nervous, restless or tense
- Having a sense of impending danger, panic or doom
- Having an increased heart rate
- Breathing rapidly (hyperventilation)
- Sweating
- Trembling
- Feeling weak or tired
- Trouble concentrating or thinking about anything other than the present worry
- Having trouble sleeping
- Experiencing gastrointestinal (GI) problems
- Having difficulty controlling worry
- Having the urge to avoid things that trigger anxiety

## Causes

The causes of anxiety disorders aren't fully understood. Life experiences such as traumatic events appear to trigger anxiety disorders in people who are already prone to anxiety. Inherited traits also can be a factor.

## Medical causes

For some people, anxiety may be linked to an underlying health issue. In some cases, anxiety signs and symptoms are the first indicators of a medical illness. If your doctor suspects your anxiety may have a medical cause, he or she may order tests to look for signs of a problem. Examples of medical problems that can be linked to anxiety include:

- Heart disease
- Diabetes

- Thyroid problems, such as hyperthyroidism
- Respiratory disorders, such as chronic obstructive pulmonary disease (COPD) and asthma
- Drug misuse or withdrawal
- Withdrawal from alcohol, anti-anxiety medications (benzodiazepines) or other medications
- Chronic pain or irritable bowel syndrome
- Rare tumors that produce certain fight-or-flight hormones

Sometimes anxiety can be a side effect of certain medications. It's possible that your anxiety may be due to an underlying medical condition if:

- You don't have any blood relatives (such as a parent or sibling) with an anxiety disorder
- You didn't have an anxiety disorder as a child
- You don't avoid certain things or situations because of anxiety
- You have a sudden occurrence of anxiety that seems unrelated to life events and you didn't have a previous history of anxiety

## Risk factors

These factors may increase your risk of developing an anxiety disorder:

- **Trauma.** Children who endured abuse or trauma or witnessed traumatic events are at higher risk of developing an anxiety disorder at some point in life. Adults who experience a traumatic event also can develop anxiety disorders.
- **Stress due to an illness.** Having a health condition or serious illness can cause significant worry about issues such as your treatment and your future.
- **Stress buildup.** A big event or a buildup of smaller stressful life situations may trigger excessive anxiety — for example, a death in the family, work stress or ongoing worry about finances.
- **Personality.** People with certain personality types are more prone to anxiety disorders than others are.
- **Other mental health disorders.** People with other mental health disorders, such as depression, often also have an anxiety disorder.
- **Having blood relatives with an anxiety disorder.** Anxiety disorders can run in families.
- **Drugs or alcohol.** Drug or alcohol use or misuse or withdrawal can cause or worsen anxiety.