

Unpasteurized fruit/vegetable juices and ciders: A potential health risk

What is the difference between pasteurized and unpasteurized juice?

Pasteurized juices have been heat treated to destroy pathogens (germs) and microbes that can make us sick. This also allows the juice to keep longer as it destroys many of the microbes that can cause spoilage.

Raw freshly pressed or squeezed juices are not heat treated and are described here as unpasteurized. These products have a short shelf life of a few days. They must be kept refrigerated and consumed by the best before date.

What is the risk?

Unpasteurized apple and orange juices have been linked to illnesses and outbreaks for over 100 years. Most of these outbreaks involved unpasteurized juices and ciders such as apple cider, orange juice and lemonades. Other fresh fruit juices such as pineapple, carrot, coconut, cane sugar, banana, acai and mixed fruit juices have also made people ill.

The most common pathogens in unpasteurized juice are toxigenic *E.coli*, *Salmonella*, hepatitis A and *Cryptosporidium*. Illnesses have been linked to fairs, farms/petting zoos and markets with farm animals. Faeces from farm animals (for example, chickens, cows and pigs) that contaminate fruits and water spread these germs to people when the fruit is unwashed, washed in contaminated water or the juice is not pasteurized before consumption.

How serious is this problem?

This problem is very serious since these pathogens can cause more than just short-

term diarrhea:

- Toxigenic *E. coli* can cause permanent kidney damage or, in some cases, death
- Hepatitis can cause liver damage
- *Cryptosporidium* causes long term diarrhea

Who is at greatest risk?

People at higher risk of getting sick are:

- Young children (5 years of age and under)
- Older adults
- Pregnant people
- People with weakened immune systems (such as those with HIV or those being treated for cancer)

These vulnerable groups should not drink unpasteurized juice.

Schools, child and adult day cares, hospitals and other facilities serving vulnerable groups should not sell or serve unpasteurized juice. Children on field trips to farms or farm markets should not be offered unpasteurized juice.

How do I know if a juice is pasteurized?

Most juices sold in stores are pasteurized and will have the word "pasteurized" on the product label. Freshly pressed or squeezed juices sold at juice bars or at roadside stands and farmers' markets are likely unpasteurized. The labelling of unpasteurized juice is voluntary. Check if the word "unpasteurized" is on the product label. If in doubt, ask the seller before deciding to buy and drink the juice.

Will refrigeration make the juice safe?

No. Refrigeration does not destroy pathogens, it only slows their growth. Unpasteurized juices have a short shelf life of only a few days. Refrigerate unpasteurized juices and consume them promptly.

How do I reduce the risk of illness?

To reduce the risk of illness:

- The best way to kill pathogens like *E.coli*, *Salmonella* and others is through pasteurization
- Boil or pasteurize raw juice and cider before consuming. To pasteurize juice at home, heat to 70°C for at least one minute
- Avoid serving unpasteurized juice and cider products to those most at risk (young children 5 years of age or under, pregnant people, the elderly and people with weakened immune systems)

- Ensure freshness and quality by refrigerating juice and cider products. Do not use them after the best before date

If you think drinking unpasteurized juice or cider may have made you ill, see a health care provider immediately and notify your local health authority. You can also call **8-1-1** to speak to a registered nurse or registered dietitian.

For more information

For more information about food safety, please visit the following:

- [HealthLinkBC File #03 Pasteurized and raw milk](#)
- [HealthLinkBC File #22 Home canning - How to avoid botulism](#)
- [HealthLinkBC File #59a Food safety: Easy ways to make food safer](#)

For more HealthLinkBC File topics, visit www.HealthLinkBC.ca/more/resources/healthlink-bc-files or your local public health unit. For non-emergency health information and advice in B.C. visit www.HealthLinkBC.ca or call **8-1-1** (toll-free). For the deaf and hard of hearing, call **7-1-1**. Translation services are available in more than 130 languages on request.