Two types of disease-causing bacteria, *Salmonella* and *Campylobacter*, are sometimes found in raw poultry. It only takes a few of these bacteria to cause severe diarrhea, fever and abdominal cramps. In some cases, chronic arthritis and other complications may occur after the initial symptoms clear up. Although unlikely, infection with either of these bacteria can result in death. When children, the elderly, and those with weakened immune systems, such as pregnant women and cancer patients, become infected, the symptoms of foodborne illness can be much worse. Therefore, special care should be taken to avoid foodborne illness when preparing food for these people.
Illness can occur when poultry is cooked improperly, or when bacteria from raw poultry cross-contaminates other foods, surfaces, utensils or even our hands. Chicken, turkey and other types of poultry can be safely enjoyed by following the simple steps described below.

**Note: The advice below on handling, thawing and preparing raw poultry applies to all raw meats and poultry.**

### At the Store

All raw poultry should be handled with care from the very beginning, since it is impossible to tell if *Salmonella* or *Campylobacter* are present.

- ✔️ Raw poultry should be securely packaged so that its juices are contained. The package should not be ripped or leaking.
- ✔️ Place raw poultry in a separate spot in the shopping cart where it won’t touch or drip on other foods.
- ✔️ Young children should be kept away from raw poultry in the shopping cart and at home.
- ✔️ At the checkout, have your raw poultry bagged separately. It should never be bagged with other foods.
- ✔️ Don’t leave poultry sitting in the car since warm temperatures help bacteria grow.

### At Home

- ✔️ Put poultry in the fridge or freezer as soon as possible. Remember, bacteria grow quickly in warm temperatures.
- ✔️ Store poultry (and all raw meat) on the bottom of the refrigerator away from other foods, in order to avoid cross-contamination.
- ✔️ Cook refrigerated raw poultry within 2 to 3 days, or freeze it.
Thawing poultry safely

The safest way to thaw frozen raw chicken or turkey is in the refrigerator. Thawing poultry at room temperature is not recommended as the surfaces will become warm, allowing bacteria to grow, while the inside is still frozen.

- When thawing raw poultry in the refrigerator, place it on a bottom shelf in a container or platter, which will collect any juices that leak from the meat.
- Thawing in a refrigerator takes time, especially for a large bird. You should allow 24 hours of defrosting time for each 2.5 kg (5 pounds) of bird.
- If you thaw by microwave, cook the food immediately once it has thawed.
- If you thaw raw poultry using cold water, keep the food in its original wrapping and ensure the water remains cold. If raw meat comes in contact with sinks, kitchen surfaces or utensils, remember to wash them immediately.
- While the practice is discouraged, if you must thaw poultry at room temperature, wrap it in a heavy paper bag or newspaper or place it in a cooler to help keep the outside cool while the inside is thawing.

Preparing poultry safely

The process of getting the chicken or poultry ready for the oven, pan or grill can spread bacteria to other foods, surfaces or people. Follow the advice below to avoid getting sick.

- Wash your hands thoroughly (for at least 20 seconds) before and after handling raw poultry.
- Do not rinse raw poultry as this can spread bacteria to you, your sink and your counters.
- Clean all cutting boards, cooking utensils and dish cloths that have come into contact with raw poultry. They can be sanitized in the dishwasher, or washed by hand in a mild chlorine bleach solution of 5 ml (1 tsp) bleach with 750 ml (3 cups) water. Rinse thoroughly afterwards.
Cooking poultry to the right temperature is the only way to ensure that it is safe to eat.

Place a digital food thermometer into the thickest part of the breast or thigh meat, not touching bone, then use the following chart to determine if it is done.

<table>
<thead>
<tr>
<th>Type of Food</th>
<th>Health Canada’s Recommended Internal Cooking Temperatures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole birds</td>
<td>85°C (185°F)</td>
</tr>
<tr>
<td>Ground poultry</td>
<td></td>
</tr>
<tr>
<td>Poultry parts</td>
<td></td>
</tr>
<tr>
<td>Chicken nuggets and other poultry products</td>
<td>74°C (165°F)</td>
</tr>
</tbody>
</table>

Using a thermometer is the only way to be sure that your poultry is cooked properly. Instant-read, digital food thermometers are quick and easy to use. However, if you don’t have a thermometer, be sure to look for other clues to help you determine if your poultry is done.

If you can answer yes to the questions below, it’s probably safe to eat your poultry:

- Is the food steaming hot?
- Do the juices run clear? (There should be no blood.)
- Is the meat white?
There is no evidence to suggest that the consumption of cooked poultry or eggs could transmit the avian flu to humans. All the evidence to date indicates that thorough cooking will kill the virus. While unlikely, transmission of the virus to humans from consumption of uncooked or undercooked eggs or poultry cannot be completely ruled out. To limit potential risks, poultry and eggs should be thoroughly cooked to kill any possible viruses or bacteria. Proper safe food handling practices, such as handwashing and keeping poultry and egg products separate from other food products, should be followed to avoid cross contamination.

Q. How many Canadians get sick from *Salmonella* and *Campylobacter* each year?

A. In 2004, almost 5000 cases of salmonellosis (the disease caused by *Salmonella*) were reported in Canada. The actual number of cases is estimated to be between 65,000 and 185,000, since most cases of food poisoning are never reported. Not all of these cases of illness are due to raw poultry as *Salmonella* can be found in many different foods.

There were more than 9000 reported cases of campylobacteriosis (the disease caused by *Campylobacter*) in Canada in 2004. However, the actual number of cases is estimated to be between 200,000 and 440,000. Poultry is considered to be the major source of illness from this bacteria.

**Chicken Nuggets**

Frozen chicken nuggets and strips might appear cooked, but are often raw inside. *Salmonella* and *Campylobacter* can survive if chicken nuggets are not cooked properly and illnesses linked to undercooked chicken nuggets have been reported in Canada in recent years.

Make sure that chicken nuggets are cooked thoroughly, not just warmed up. They should be heated to 74°C (165°F) in a conventional oven. Due to uneven heating, microwave cooking of frozen chicken nuggets is not recommended.

Since frozen nuggets and strips are often raw inside, it is very important to wash your hands thoroughly after handling them.

**Avian Influenza and Poultry**

**Questions and Answers**

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Q. Should I rinse poultry before cooking it?

A. No. Rinsing poultry can spread bacteria everywhere the water splashes, creating more of a safety hazard. Proper cooking is the only way to make poultry safe to eat.

Q. If the meat is pink but my thermometer reads 74°C, is my chicken burger safe to eat?

A. Yes, provided the temperature has been measured in the centre of the thickest part of the burger and the thermometer is properly calibrated. However, most people would prefer to continue to cook their poultry until all pink is gone. Using a thermometer is the only way to ensure that your poultry has been cooked properly.

Q. Why is the cooking temperature for whole poultry (85°C) different from ground chicken or chicken parts (74°C)?

A. There are many factors that affect the cooking process for whole poultry such as the shape and size of the bird, the type of roasting pan and the type of oven. The higher temperature for whole poultry is necessary to ensure the whole bird is safe, not just the one spot where the temperature is taken.

What is Health Canada doing?

Health Canada has a mandate to protect the health of Canadians through the development of policies, guidelines, standards and regulations. The Canadian Food Inspection Agency enforces these regulations and uses the policies, guidelines and standards in their assessment of industry food safety programs.

Health Canada is proposing a change to the Food and Drug regulations to have safe handling instructions on the labels of all raw ground and minced meat and poultry products. Meat and poultry products which look cooked but are not ready-to-eat (such as raw chicken nuggets) will also be included in these proposed labelling regulations. These safe handling labels would include recommended cooking temperatures.

Research on *Salmonella* and *Campylobacter* in poultry and on the farm is carried out by Health Canada and Public Health Agency of Canada scientists. New information from this research is used in the development of policies.

Educational material and campaigns are developed by Health Canada, in collaboration with the Canadian Food Inspection Agency and other government organizations, the Canadian Partnership for Consumer Food Safety Education and the poultry industry.

Collaboration at an international level is developed through participation on the Codex Alimentarius Committee on Meat Hygiene.