

Activity 3- Chicken: Delicious and Nutritious!

Overview: In this activity you will become familiar with food safety and kitchen hygiene practices specific to preparing chicken. You will investigate your nutritional needs, the nutritional benefits of chicken and the role it can play in a healthy diet. You will celebrate your learning by preparing a delicious dish featuring chicken.

Food Safety at Home

Bacteria are everywhere and while most are harmless or even beneficial to humans, some can make you sick. All foods, including meat, fruits and vegetables have the potential to cause food-borne illness. While the responsibility of safe food falls on everyone in the food system, exercising safe handling practices at home will help reduce the risk for you and your family.

Keep it Clean- Wash your hands with soap and warm water for at least 20 seconds before and after handling food. Clean and sanitize your work area, cutting boards and utensils with a disinfectant or mild bleach solution (5mL in 750mL water). Wash your produce under running water to remove dirt and residue.

Separate- Improper handling of raw meat and seafood can result in bacteria spreading between foods or to other surfaces. If possible, use separate cutting boards for meat and for produce and wash them thoroughly after use. Keep raw meat sealed in a container on the bottom shelf of the refrigerator. Never place cooked food back on to a plate or cutting board that previously held raw food. Marinades used on raw meat should not be used on cooked foods.

Chill- Refrigerate or freeze within two hours to reduce the time for bacteria to grow. Defrost frozen chicken in the refrigerator, microwave or in cold water, never defrost at room temperature. Store leftovers in small, shallow containers for quick cooling and quick thawing after they have been frozen. Wrap individual pieces of chicken in plastic wrap then store wrapped pieces in a freezer bag to avoid freezer burn. Label items with the date before they are stored in the fridge or freezer. Fresh chicken can be safely stored in the fridge for up to three days or in the freezer for up to six months.

Cook- Chicken pieces should be cooked to an internal temperature of 165F/74C, whole chicken should be cooked to 185F/85C. If possible, use a food thermometer in the thickest spot to ensure chicken is cooked through. Juices should run clear and the meat should show no pink when it is cut. Keep food hot (140F/60C) prior to serving. If you are taking a dish to a gathering, keep it hot until you leave and insulate while traveling. Hot foods should not be left at room temperature for more than one hour.

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Introduction: Nutrition Needs

Food is an important part of our social and cultural customs but is also essential to life. Our bodies get all the energy, structural materials and vitamins/minerals we need from the foods we eat. Nutrients from our food provide the physical and metabolic basis for our physical structure and function. These nutrients include:

- Energy- often expressed as calories or kilocalories and is found in the fats, carbohydrates and proteins found in our food
- Macronutrients- Called 'macro' because these are the largest components in our food and we use them in relatively large quantities. They supply our bodies with energy, provide materials needed for tissue growth/repair and provide molecules needed for the chemical messaging that regulates physiological function.
- Micronutrients- Called 'micro' because they exist in relatively small quantities in our food and are needed in small quantities in our bodies. These include vitamins (a collection of 13 different vitamins are needed for our bodies to function properly) and minerals (a collection of at least 16 elemental molecules that make up structural tissue and act as chemical signals).

Just as every person is different, so are their nutrient needs. Factors including gender, age, body size, activity level, genetic traits and metabolism influence the amount of energy and nutrients that our bodies require each day. The calculation of these important items is referred to as the Recommended Daily Intake, or RDI.

Use the following link to learn more about your estimated RDI (the amount of energy and nutrients that you require):

<https://www.nal.usda.gov/fnic/dri-calculator/>

Keeping a list of daily food intake would be difficult to maintain and would likely take the joy out of food. The easiest way to ensure you are meeting your nutrient needs is to eat a balanced diet, including a variety of colourful fruits and vegetables, whole grains, nuts and seeds, and quality proteins from either animals or plants. Canada's Food Guide is an excellent resource for information, tips and recipes.

<https://food-guide.canada.ca/en/>

Chicken is a popular option for animal-based protein. It tends to be low in fat and in addition to protein, it is a good source of calcium, phosphorus and other micronutrients. Visit this link to see the nutritional profile for several cuts of chicken.

<https://www.canada.ca/en/health-canada/services/food-nutrition/healthy-eating/nutrient-data/nutrient-value-some-common-foods-2008.html#a12>

This link is useful to find the nutrition information for items such as fresh produce, raw meat,



bakery items and individual serving sized items that aren't required to display a nutrition facts label. For most other foods, an inventory of the energy, macronutrient and several micronutrient contents, is required to be included on the label. This is called a Nutrition Facts Label. You can learn more here:

<https://www.canada.ca/en/health-canada/services/understanding-food-labels/nutrition-facts-tables.html>

Answer the following questions:

1. How much energy does your body require daily? Would this be different for someone 30 years older? Why?
2. Using the Nutrient Value Table, how much energy is found in a serving of chicken? What is the serving size? What other nutrients are included? Compare this to a serving of beef and a serving of lentils. How do the energy and nutrient values compare?
3. Think of your favorite chicken-based food. Can you find it in the Nutrient Value table? Many manufacturers and restaurants post nutritional information on their websites. Research the nutrition data of your favorite food.
4. This activity is followed by a recipe for Honey Quinoa Chicken Nuggets. The nutrition data is included. Compare it to your favorite 'fast-food' chicken nuggets or chicken fingers.

Activity: Chicken nuggets are a favorite convenience food. They are a common fast-food item and are available in most grocery stores in the freezer section. Chicken nuggets tend to have a lot of calories per serving because they are deep fried. This baked version features lean chicken breast and high protein quinoa as the 'breading'. Enjoy!

Honey Quinoa Chicken Nugget

Recipe courtesy of www.chicken.ca.



90 minutes,
including prep



Makes 4 servings



Preheat oven to
400°F/200°C.



Ingredients

6 skinless boneless chicken thighs
OR

3 skinless boneless breasts

2 eggs

2.5 mL or 1/2 tsp salt

30 mL or 2 tbsp liquid honey

15 mL or 1 tbsp Dijon (optional)

5 mL or 1 tsp poultry seasoning (optional)

125 mL or 1/2 cup all-purpose flour

500 mL or 2 cups cooked quinoa

Directions

1. Trim any fat from chicken. Cut into “two-bite” size pieces (thighs into 3 pieces and breasts into 6 pieces) keeping them as similar in size as possible. In a medium size bowl, whisk eggs with salt, honey, Dijon and poultry seasoning. Place flour and quinoa in separate bowls.
2. Coat a piece of chicken with flour, shake off excess, then place in egg mixture and turn to coat. Letting excess drip off, place in quinoa and gently press down. Turn and press again to lightly coat. Set on a parchment paper lined baking sheet. Repeat with remaining chicken.
3. Bake in center of oven until golden and no pink remains in chicken, about 20 minutes. Nuggets should reach an internal temperature of 165°F/74°C.

Nutrition Info

	Amount	% Daily Value	
Calories	299	Potassium	15
Protein	40 g	Calcium	4
Fat	12 g	Iron	26
Saturated Fat	3 g	Vitamin A	7
Carbohydrate	30 g	Vitamin C	7
Fibre	2 g	Vitamin B6	31
Sugar	8 g	Vitamin B12	37
Cholesterol	223 mg	Folate	30
Sodium	438 mg	Magnesium	34
		Zinc	48