



SPOTLIGHT

on Teen Girls and Iron

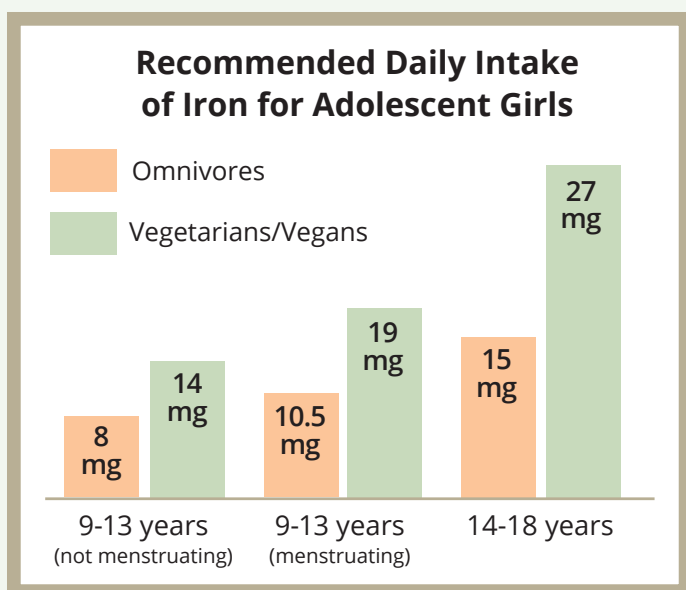
We don't hear much about the iron needs of teen girls. **LET'S CHANGE THAT.**

Iron Deficiency: A Concern for Young Minds and Bodies

Iron deficiency can cause delayed cognitive and physical development, poor acquisition of language skills, and increased risk of infection in children and adolescents.¹

– Canadian Paediatric Society

- The iron needs of girls increase sharply during adolescence – in fact, **starting at age 14, their iron needs almost double.**



Health Canada (2023), [Dietary Reference Intakes for Elements](#).

Note: Very active teens may need as much as [30-70% more iron](#) compared to inactive teens.

- Almost 1 in 4 teen girls are iron deficient in Canada.²
- Eating red meat is associated with less iron deficiency in teen girls.³
- For teens 9-18 years of age, a ratio of 3:1 animal to plant protein is nutritionally optimal.⁴

Teens may be at higher risk of iron deficiency if they:^{3,6}

- Don't eat many iron-rich foods
- Avoid or eat little red meat
- Have heavy menstrual periods
- Do frequent endurance exercise
- Skip meals or diet often
- Follow a vegan or vegetarian diet

It's far better to prevent low iron. It can take several **months or longer** to restore iron levels.⁵

SPOT THE SIGNS OF LOW IRON⁶

shortness of breath
poor school performance
headaches
LOW ENERGY
poor health
EXHAUSTION
anxiety
dizziness
DEPRESSION
Irritability
thin hair
brain fog
pale skin
heart palpitations
Depressed immune system

THE TYPE AND AMOUNT OF IRON IN FOODS VARY

Meat, fish, and poultry provide heme iron, the most bioavailable form of iron. Other foods like eggs, leafy greens, tofu, legumes, and grains provide non-heme iron, the less bioavailable form.

Download our factsheet to learn more about which foods provide iron:

Foods That Provide Iron

Iron is essential for good health, but our bodies can't make it—we have to get it from food. When planning meals, the type and amount of dietary iron matter.

Excellent Source 25% or more of Daily Value	Good Source 15-24% Daily Value	Source 5-14% Daily Value
WELL-ABSORBED IRON (heme) Calculated based on 100g, cooked portion		
Liver (beef and chicken), oysters, mussels, venison, moose	Beef, bison, goat, clams, sardines	Lamb, veal, pork, duck, rabbit, chicken, turkey (dark meat), herring, mackerel, wild salmon, tuna, rabbit
LESS-WELL ABSORBED IRON (non-heme) Calculated based on the serving sizes outlined in Health Canada's Table of Reference Amounts for Food		
Instant oatmeal (iron-fortified), breakfast cereals (iron-fortified), dark chocolate (70%–85% cocoa)	Lentils, white beans, hemp seeds, tahini, enriched pasta, cooked spinach, blackstrap molasses	Eggs, seeds (pumpkin, chia, sesame), beans (kidney, black, baked), chickpeas, nuts (cashews, almonds, pistachios, hazelnuts), green veggies (peas, Brussels sprouts, raw spinach, asparagus, arugula, beet greens, kale, rapini, bok choy), soy (tofu, enriched soy beverage, soy nuts, edamame), grains (enriched white and whole wheat bread, quinoa), prune juice, fancy molasses, canned tomatoes, dried apricots

TIP: Check food labels - iron amounts can vary depending on the brand.

FOODS <5% DV (these do not qualify as a source of iron):

Meats: turkey breast

Seafood: rainbow trout, farmed salmon, shrimp, scallops, lobster

Nuts: walnuts, Brazil nuts, pecans, peanuts and peanut butter

Fruit: raisins, dates, figs, prunes

Grains: enriched long grain rice

Vegetables: potatoes, sweet potatoes, romaine and iceberg lettuce, napa cabbage, corn, broccoli, gai lan, canned black olives, beets, carrots, fresh tomatoes

Iron-packed recipes

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Source of iron content for Daily Value (DV) calculations: Health Canada, Canadian Nutrient File 2015.

REFERENCES

1. Canadian Paediatric Society. 2022. Iron deficiency anemia in children.
2. Cooper M et al. Population Iron Status in Canada: Results from the Canadian Health Measures Survey 2012–2019. J Nutr 2023;153:1534–1543.
3. Stubbendorff A et al. Iron insight: exploring dietary patterns and iron deficiency among teenage girls in Sweden. European Journal of Nutrition 2025;64:107.
4. Fabek H, Salamat S, and Anderson GH. Association Between Dietary Protein Sources and Nutrient Intake in the Diet of Canadian Children. Nutrients 2025;17(11):1834.
5. National Institute of Health (2022, March 22). Iron-Deficiency Anemia. National Heart, Lung, and Blood.
6. <https://www2.gov.bc.ca/gov/content/health/practitioner-professional-resources/bc-guidelines/iron-deficiency#risk-identification>.

LINKS

Study Summary: Teen Girls & Red Meat

... just the FACTS

Study summaries examining the latest science on beef's place in a healthy diet

TEENAGE GIRLS WHO DON'T EAT MEAT ARE AT INCREASED RISK OF IRON DEFICIENCY

OBJECTIVE: To examine the relationship between dietary patterns and iron status among teenage girls.

PARTICIPANTS: The Iron-Deficiency Study included 475 female teenage high school students with an average age of 16.6 years, in 2 cities in Sweden.

STUDY DESIGN: This observational study classified participants into groups based on their self-reported dietary patterns: omnivores, non-consumers of red meat, pescatarians, vegetarians and vegans. Blood samples were used to measure participants' iron status and the prevalence of iron deficiency and anemia among these groups.

METHODS: Blood samples were collected, iron supplementation, and demographic factors were collected using questionnaires. Blood samples were analyzed to determine iron status based on the following definitions:

- Iron deficiency: Ferritin < 12 µg/L
- Anemia: haemoglobin < 115 g/L < 10 years old < 117 g/L < 10 years

Iron status and the prevalence of iron deficiency and anemia were compared across diet groups.

RESULTS: The prevalence of iron deficiency (after adjusting for BMI, menstruation, and iron supplementation) was:

- 22% in omnivores
- 35% in vegetarians/vegans

Further levels decreased along with increasing dietary restrictions, and compared to omnivores were:

- 10% lower in non-consumers of red meat
- 42% lower in vegetarians/vegans

Study Summary: 3:1 Ratio

... just the FACTS

Study summaries examining the latest science on beef's place in a healthy diet

A 3 TO 1 ANIMAL-TO-PLANT PROTEIN RATIO IS NUTRITIONALLY OPTIMAL FOR CHILDREN

OBJECTIVE: To examine the association between protein food sources and nutrient intake in Canadian children 9-10 years.

PARTICIPANTS: This study included dietary recall data for 3,204 children 9-10 years of age (1,513 females and 1,173 males).

STUDY DESIGN: 24-hour dietary recall data from the 2015 Canadian Community Health Survey was used to assess the nutritional implications of varying animal to plant protein intake in children's diets.

METHODS: Participants were allocated to one of four groups based on the proportion of protein from plant sources in their diet. Average nutrient intakes were compared and assessed against the Recommended Dietary Allowances (RDAs) and Adequate Intake (AIs).

RESULTS: Diet Groups:

	Group 1	Group 2	Group 3	Group 4
Proportion of protein from plant sources	0-25%	26-50%	51-75%	76-100%
Percentage of children in each group	20.1%	33.0%	33.0%	13.9%

Nutrient Adequacy:

- 6-11% of children did not meet protein intake (Group 2) aligns most closely with dietary recommendations.
- Groups 1 and 2 met the RDA and had a low risk of inadequacy for protein, iron, zinc, and 8 vitamins B6, B12, thiamine, riboflavin, and niacin.
- Group 3 had the most favorable nutrient profile.

Protein Intake:

- With the quantity and quality of protein consumed increased with increasing plant protein intake.
- On average, children derived 64% of protein from animal sources and 36% from plant protein sources.

Iron for Teen Girls

for teen girls

Iron

About 1 in 4 teen girls is iron-deficient. Are you one of them?

thinkbeef.ca/teen-iron

We don't hear much about the iron needs of teen girls. **LET'S CHANGE THAT.**

FEATURED BROCHURE

About 1 in 4 teen girls is iron-deficient. IRON for TEEN GIRLS is packed with important nutrition information you should know.

[Read the eBook](#)

Looking to boost your iron levels?

[Click for recipes...](#)

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