

Help Your Child Learn & Grow: Prevent Anemia

Teacher's Guide

Support for Healthy Beginnings is provided by First 5 Shasta,
Shasta County Public Health, and Shasta Head Start

Using the “Help Your Child Learn & Grow: Prevent Anemia” Flipchart

This guide contains talking points that you can use with the “Help Your Child Learn & Grow: Prevent Anemia” flipchart. It also contains a “Nutrition Facts” food label handout that can be used to teach parents how to select cereals that contain at least 45% DV iron (see page 9 for activity instructions). We encourage you to use the label reading activity with all of the options below. You can use the flipchart in different ways, depending on your group of parents:

- Set up the flipchart near your parent sign in sheet. Flip to a new page once a week.

OR

- Show the “For Goodness Sake - Prevent Anemia!” video from the parent kit and then use the flipchart to reinforce key points from the video.

OR

- Show the “For Goodness Sake - Prevent Anemia!” video and then use the flipchart to answer any questions that parents have.

OR

- Do the entire flipchart presentation using this guide.

Flipchart page: 1
INTRODUCTION

What is anemia?

- Anemia (low iron levels) happens when the body does not have enough iron to make a protein in red blood cells called hemoglobin.
- Hemoglobin carries oxygen from your lungs to the rest of the body.
- When a person is anemic, they have **less oxygen** in their blood. Every part of the body (including the brain) needs oxygen.

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BE AWARE: YOUR CHILD MAY HAVE ANEMIA

Anemia is common!

- Anemia is common in young children – **1 in every 10-12 preschoolers is anemic.**
- It is important to prevent anemia because young children need iron for growth and development. **Anemic children lag behind in development compared to normal, healthy children.**
- **Lack of iron in the diet is one of the major causes of anemia in children.**
 - ⇒ Children who drink a lot of milk and don't eat iron-rich foods and young women who follow "fad" diets may be at risk for iron deficiency.
 - ⇒ Eating a well balanced diet with enough iron is a very important step to take to prevent iron deficiency anemia.

Flipchart page: 2
BE AWARE: YOUR CHILD MAY HAVE ANEMIA

More advanced information if time/interest allow:

What can cause anemia (low iron levels)?

A number of things can cause a child to become anemic:

- Lack of iron in the diet (see above)

- Growth spurts
 - ⇒ Children under age 3 are growing and developing so fast that their bodies may have a hard time keeping up with the amount of iron they need.
 - ⇒ A 4-8 year old child needs 10 mg iron/day, whereas an adult man only needs 8 mg iron/day (2000 RDA).

- Blood loss
 - ⇒ This is a common reason for iron deficiency anemia in adults.
 - ⇒ Causes may include heavy periods and internal bleeding from stomach ulcers, ulcerative colitis, cancer, or taking aspirin or similar medicine for a long time.

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WHY ARE WE CONCERNED ABOUT ANEMIA?

Children who are anemic may have these symptoms:

- Feel tired and weak
- Act cranky
- Get sick easily
- Eat poorly
- Have trouble learning
- Don't grow as well
- Other possible symptoms: paleness, unusual shortness of breath during exercise, fast heartbeat, cold hands and feet, brittle nails, headaches (American Academy of Family Physicians, 2005)

Sometimes children who are anemic may not have any symptoms at all. This is why it is important to screen children for anemia (will be covered on next page of flipchart).

Anemia can have lasting negative effects for a child if it is not diagnosed and treated.

- Anemia that lasts for a long time or reoccurs can cause a child to have a decreased ability to learn, an impaired attention span and memory, and a higher risk for lead poisoning.
- When the anemia is corrected, some of these effects can be reversed. But if the child is very young, some of the effects may be **permanent**.

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WHY ARE WE CONCERNED ABOUT ANEMIA?

More advanced information if time/interest allow:

- Iron's main job is to transport oxygen throughout the body (including to your muscles and brain)
- Iron's other jobs include:
 - Helping with energy production
 - Helping the immune system
 - Detoxifying drugs in the liver
 - Changing beta-carotene (found in dark green and orange-yellow vegetables) into a form of vitamin A that the body can use.

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HOW DO I KNOW IF MY CHILD IS ANEMIC?

- **A blood test is the only way to find out for sure if a child is anemic.**
- A child's doctor can order a "hemoglobin" or "hematocrit" test to find out if a child is anemic. These are simple tests that usually only involve a finger prick to obtain a small amount of blood.

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HOW DO I KNOW IF MY CHILD IS ANEMIC?

More advanced information if time/interest allow:

Here are some suggestions for parents to help prepare a child for a blood test:

- ⇒ Downplay the whole event. Talk about the procedure and explain that it may feel like a small pinch.
- ⇒ If parents need a blood test, it is helpful if they go first.
- ⇒ Plan to do something special after the blood test (i.e. go to the park, museum, library, or whatever a child particularly likes to do).

How is iron deficiency anemia treated?

The doctor may recommend more iron rich foods or iron pills.

Can iron pills cause problems?

Iron pills can cause stomach upset, heartburn and constipation. Be sure to tell your doctor about any discomfort that you/your child have while taking iron pills. The tips below may help reduce this discomfort:

- Take the pills with food.
- If your doctor recommends that you take more than one iron pill a day, start slowly. (i.e. take 1 pill a day for 3 to 5 days, then 2 pills a day until you aren't bothered by that amount). Increase the number of pills until you're taking the amount your doctor recommended.
- Increase the fiber and water in your diet if you are constipated. Foods that are good sources of fiber include whole grains, fruits, and vegetables.
- Don't take iron pills at bedtime if they upset your stomach.

Why is a follow-up blood test important?

Most anemia in young children is caused from eating a diet low in iron. A doctor may, however, order other tests to make sure that the anemia isn't being caused by something else. Serious conditions that can cause anemia include: sickle-cell anemia, blood disorders, blood loss, vitamin B-12 deficiency (common in strict vegetarians), and other nutritional deficiencies including folic acid, vitamin E, and copper.

Flipchart page: 5
SIMPLE RULES TO PREVENT IRON-DEFICIENCY ANEMIA

1. Eat more foods containing iron.

Brainstorm: What foods contain iron? (use chart visuals to help with discussion)

Foods VERY HIGH in iron

- Beef, pork, cooked oysters, liver
- Cooked beans (pinto, garbanzo, kidney, lima, black, lentils)
- Iron-fortified cereals (check the label to make sure that the cereal has 45% DV iron or more)

Food HIGH in iron:

- Chicken, turkey, fish, canned tuna, shrimp, clams
- Tofu and edamame (green vegetable soybean)
- Enriched bread, rice, pasta, corn/flour tortillas (**Note:** Not all rice is enriched. Encourage parent to purchase enriched rice.)
- Leafy greens, peas, snow peas
- Prunes, prune juice, raisins

Foods very LOW in iron:

All dairy products: milk, cheese, yogurt, ice cream

- Milk provides important nutrients like protein, calcium, phosphorus, vitamin B12, riboflavin, and vitamin D, BUT it is NOT a good source of iron.
- Children who drink too much milk (>24 oz. [3 cups]/day) may not eat enough iron rich foods, increasing their risk for anemia.

Which of the foods on the flipchart provides the most iron per serving?

Answer: iron-fortified cereals

Be aware of iron blockers.

Some foods like coffee and tea block iron from getting into your body. Too much milk at the same meal can also be an iron blocker. Drink moderate amounts (<1 cup) of milk with meals.

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SIMPLE RULES TO PREVENT IRON-DEFICIENCY ANEMIA

2. Eat helper foods (meat and vitamin C rich foods) with iron rich foods to help your body absorb iron. Cook in cast iron pans if you have them.

- There is a factor in meat that helps the body absorb iron. Try adding lean meat to chili with cooked beans.
- Vitamin C rich foods also help the body absorb iron.
 - ⇒ Brainstorm: What are some vitamin C rich foods (use visuals)?
 - Fruits: oranges, grapefruit, cantaloupes, strawberries, mango, papaya, kiwi
 - Vegetables: tomatoes, peppers, chilis, broccoli, greens, cabbage, cauliflower
 - ⇒ Try cooking beans or tofu with vitamin C rich foods like tomatoes or peppers.
 - ⇒ Offer iron fortified cereal with orange slices or 100% orange juice.
- Why use cast iron cookware?
 - ⇒ Cooking foods in cast iron cookware adds iron to them.

More advanced information if time/interest allow:

How to care for cast iron cookware:

- It is essential to thoroughly dry cast iron cookware between uses to avoid rust. To “thoroughly dry” a pan after washing, place it on the stove over very low heat until all the water has evaporated and the pan is warm to the touch. Turn off the heat and let it cool before storage.
- To “cure” or “season” new pans, wash them well with soap and water. Rub a small amount of cooking oil or solid vegetable shortening on the inside of the pan. Put the pan in a 300° oven for 60 minutes and then cool. Wipe out excess oil with a paper towel and store.
- If pans become rusty, scour out the rust, then wash and re-season as described above.

SIMPLE RULES TO PREVENT IRON-DEFICIENCY ANEMIA

3. Read labels to offer cereals that contain at least 45% DV iron.

- ⇒ Serving children iron-fortified cereals is the easiest way to boost the amount of iron in the diet.
- ⇒ You can find out about the iron content of a cereal by looking at the bottom section of a “Nutrition Facts” label (use flipchart visual).
- ⇒ Cereals made by the same company or cereals in the same **form** (for example: Rice Krispies™ and “Crisped Rice” or “Cheerios” and “Honey-Nut Cheerios” for example) often have different amount of iron – you must read the “Nutrition Facts” to know.
- ⇒ Serving iron-fortified cereal with a vitamin C rich food like oranges will help children absorb the iron.
- ⇒ Cold cereals (i.e. Cheerios™, Kix™ or Chex™) are a great snack. Take a small plastic bag of cereal pieces for a handy snack. Mix different shapes of cereals or add raisins or pretzels to make “trail mix.”

Parent Activity:

- Pass out the “Nutrition Facts” food label parent handout or have parents bring in the “Nutrition Facts” panels from cereal boxes.
- Have parents identify cereals that contain at least 45% DV iron.

More advanced information if time/interest allow:

If a parent wants to know how to calculate the amount of iron in the cereal, 100% DV is equal to 18 mg of iron. A cereal containing 45% DV iron will contain approximately 8 mg of iron in the serving size specified on the box (e.g., $0.45 \times 18 = 8.1$ mg iron).

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SIMPLE RULES TO PREVENT IRON-DEFICIENCY ANEMIA

4. Offer your child no more than 2-3 cups (16-24 oz) of milk and no more than 1/2-3/4 cup of 100% juice (4-6 oz.) per day.

- Milk is an important food for healthy bones and teeth, but just the right amount - not too much.
 - ⇒ Drinking too much milk can decrease iron absorption and reduce a child's appetite for iron rich foods.
 - ⇒ Children 1-2 years old need around 2 cups (16 oz.) of whole milk daily. Children who are still drinking from a bottle after one year of age often drink too much milk. This is why weaning children to a cup is an important step for preventing anemia.
 - ⇒ Older children need only 2-3 cups (16-24 ounces) of 1% or non-fat/skim milk daily.
- The American Academy of Pediatrics recommends that children drink no more than 4-6 oz. of juice/day.
 - ⇒ Children who drink too much juice won't eat enough iron-rich foods.
 - ⇒ Excessive juice consumption is also associated with weight gain, malnutrition, diarrhea, stomach problems and cavities.

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WRAP-UP AND REVIEW

Take these steps to prevent anemia:

1. Eat more foods with iron for strong blood.
2. Eat helper foods (meat and vitamin C rich foods) with iron rich foods to help your body absorb iron.
3. Cook in cast iron pans.
4. Read labels to offer cereals that contain at least 45% DV iron.
5. Offer your child no more than 2-3 cups (16-24 oz.) of milk and no more than $\frac{1}{2}$ - $\frac{3}{4}$ cup (4-6 oz.) of 100% juice per day. Offer children water if they are thirsty.

By preventing anemia, you are helping your child to learn and grow!