



Journey through Health: Intestines

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Age-Related Intestinal Changes

With age, the intestine loses strength and elasticity. This can result in food moving more slowly through the intestines.

Diet, Physical Activity, Food Safety, and Stomach Health

Foodborne illness: Slower intestinal movement allows foodborne pathogens to remain in the intestine longer. This is one reason why the risk of foodborne illness increases with age.

Following safe food handling practices can lower the risk of foodborne illness. Many foodborne illnesses are caused by unsafe food handling practices in the home. Some food handling practices that can lower the risk of food safety problems in the home are washing hands, thoroughly rinsing vegetables and fruits, preventing cross-contamination, cooking foods to safe internal temperatures, and storing foods safely for the recommended time. These practices are highlighted by the four basic food safety principles which work together to reduce the risk of foodborne illness. These principles are:

- **Clean.** Clean hands, food contact surfaces, and vegetables and fruits.



- **Separate.** Separate raw, cooked, and ready-to-eat foods while shopping, storing, and preparing foods.
- **Cook.** Cook foods to a safe temperature.
- **Chill.** Refrigerate perishable foods promptly.

Diverticulosis and constipation. Diverticulosis and constipation are two intestinal problems that tend to increase with age. Decreased intestinal movement along with inadequate fiber and fluid intake can result in small, hard stools which are difficult to pass. This can increase the risk of diverticulosis and constipation. Physical inactivity can also contribute to constipation.

Many older adults do not consume enough high-fiber foods. Some older adults lose interest in cooking and eating, and as a result, may

choose more prepared foods that tend to be low in fiber. In addition, older adults with mouth and tooth problems may choose softer foods that tend to be low in fiber.

Higher fiber intake can result in larger, softer stools which are easier to pass. Foods high in fiber include fruits, vegetables, whole grains, beans, peas and lentils. Recommendations are to eat a variety of high-fiber foods. Fiber works by absorbing fluid. When increasing fiber in the diet, it is important to consume adequate fluids.

Although fiber has many health benefits, some older adults may have problems handling fiber. As a result, it is a good idea to check with your health care provider before increasing fiber too much.

Dehydration is a risk factor for constipation. Many older adults do not consume adequate fluids. The thirst mechanism decreases with age which can contribute to lower fluid intake. Recommendations are to 13 cups of fluid a day for males and 9 cups a day for females. More fluids may be needed if the temperature or humidity is high.

Regular physical activity is associated with a lower risk for constipation. Physical activity recommendations are at least 150 to 300 minutes of moderate-intensity physical activity a week or 75 to 150 minutes of vigorous-intensity physical activity, or an equivalent combination of moderate and vigorous-intensity physical activity.

MyPlate Messages Promoting Intestinal Health

Several of the MyPlate messages can help promote intestinal health.

Build a Healthy Plate

- Make half your plate fruits and vegetables.
- Make at least half your grains whole.
- Vary your protein food choices.
 - Eat beans, peas and lentils, which are a natural source of fiber and protein.
- Drink six to eight cups of fluid each day.
- Keep your food safe to eat.
 - Follow the four food safety principles: clean, separate, cook, and chill.

Be physically active your way

- At least 150 to 300 minutes of moderate-intensity physical activity a week, or 75 to 150 minutes of vigorous-intensity physical activity, or an equivalent combination of moderate and vigorous-intensity physical activity.
 - If you cannot meet this guideline, be as physical active as your abilities and conditions will allow.

Sources

American Dietetic Association. Position of the American Dietetic Association: Oral Health and Nutrition. *J Am Diet Assoc.* 2007;107:1418-1428.

Bernstein M, Luggen A.S. *Nutrition for the Older Adult.* Sudbury, MA: Jones and Bartlett publishers; 2010.

Brown JE. Nutrition in Older Adults. In: *Nutrition Through the Life Cycle 4th ed.* Belmont, CA: Wadsworth, Cengage Learning; 2011.

National Institute on Aging. *AgePage: Concerned about Constipation?* 2008.

United States Department of Agriculture. *Dietary Guidelines for Americans 2020-2025.*

United States Department of Agriculture. *ChooseMyPlate.gov.* Accessed at www.choosemyplate.gov

United States Department of Health and Human Services. 2018. *Physical Activity Guidelines For Americans.* 2nd ed.

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