

NEW RESEARCH SUGGESTS DRINKING 100 PERCENT ORANGE JUICE IS ASSOCIATED WITH IMPROVED NUTRIENT ADEQUACY AND DIET QUALITY AMONG CHILDREN



One Hundred Percent Orange Juice May Play an Important Role in Supporting Intake of Certain Under-consumed Nutrients

Orange juice may do more for children's diet and overall health than you think, according to results of a recently published study in Nutrition Research.

Data from this study suggest children (ages 2-18 years) who drink 100 percent orange juice tend to have improved nutrient adequacy and diet quality, as well as certain diet and health parameters. Additionally, the research suggested that

consumption of 100 percent orange juice was not associated with overweight or obesity in children.

As part of the study, researchers analyzed data from the 2003-2006 National Health and Nutrition Examination Survey (NHANES) and found that children who regularly consume 100 percent orange juice tended to have significantly higher intakes of vitamin C, potassium, vitamin B6, folate, dietary fiber and magnesium than non-consumers. None of the children who consumed 100 percent orange juice were below the Estimated Average Requirement (EAR) for vitamin C, while nearly 30 percent of non-consumers were below the EAR. Furthermore, diet quality (as measured by the Healthy Eating Index (HEI-2005)) was significantly higher in those children consuming 100 percent orange juice than in non-consumers, as was intake of total fruit, fruit juice and whole fruit.

"A growing body of research has painted a clear picture that enhanced nutrient intake and better diet quality are associated with drinking 100 percent orange juice in children," said study co-author Carol E. O'Neil, PhD, MPH, LDN, RD, School of Human Ecology, Louisiana State University Agricultural Center. "Our research adds further support to the association between drinking 100 percent orange juice and higher intakes of five important nutrients--vitamin C, folate, magnesium, dietary fiber and potassium--which are generally under-consumed by the U.S. population."

This is the first study that has examined the usual intake of 100 percent orange juice in a nationally representative population, and these data add support to previous studies that found no association between 100 percent fruit juice consumption and increased risk for overweight and obesity in children and adolescents.

Furthermore, children who consumed 100 percent

orange juice had significantly lower mean LDL cholesterol levels than those who did not consume 100 percent orange juice.

"These findings are consistent with the Dietary Guidelines for Americans, 2010, which conclude that 'for most children and adolescents, intake of 100 percent fruit juice is not associated with body weight,'" said Gail Rampersaud, MS, RD, LDN, Associate in Nutrition Research and Education, University of Florida. "It's encouraging that the overall body of research provides evidence to support children enjoying all of the taste, nutritional and health benefits that 100 percent orange juice offers."

Relation to Dietary Guidelines for Americans, 2010

According to the Dietary Guidelines for Americans, 2010, the "total diet" should consist of nutrient-dense foods that provide essential nutrients and health benefits.

"People can feel good about enjoying one hundred percent orange juice daily because it fits many of the key recommendations outlined in the Dietary Guidelines," said Rampersaud. "For example, 100 percent orange juice is more nutrient-dense than many commonly-consumed 100 percent fruit juices, and one 8-ounce serving is a good source of potassium and folate, as well as an excellent source of vitamin C."

Editor's Note: The National Health and Nutrition Examination Survey (NHANES) is an ongoing series of surveys, implemented by the Centers for Disease Control and Prevention, that are designed to assess the health and nutritional status of children and adults in the United States. The NHANES surveys are conducted and analyzed in a way to be representative of the U.S. population. The analysis published in Nutrition Research used 2003-2006 data from more than 7,200 children and adolescents.

Health and Nutrition Benefits of 100 percent orange juice:

- **Antioxidants.** One 8-ounce glass of orange juice gives you at least 100% of the recommended Daily Value for vitamin C. Vitamin C is an important antioxidant, as it may help neutralize "free radicals" formed as part of the body's natural oxidation processes. Some influences of modern life, like smoking and air pollution, may also be responsible for the formation of free radicals. Many scientists believe that free radicals may cause cell damage that contributes to the development or progression of chronic diseases like heart disease and cancer.
- **Weight Management.** One 8-ounce serving of orange juice is fat-free and, at 110 calories per 8-ounce glass, has fewer calories than many commonly consumed 100% fruit juices.
- **Glowing Skin.** Vitamin C found in orange juice is essential for the production of collagen, which is needed for healthy skin and gums. Collagen breakdown in the skin may lead to signs of premature aging. Regular consumption of Florida orange juice can provide you with the vitamin C you need to help support collagen formation.
- **Immune System Support.** When you get a cold, it's important to give your body the fluids and nutrients it needs. An 8-ounce glass of orange juice provides at least 100% of the recommended Daily Value for vitamin C, plus other nutrients and phytochemicals that can help support a healthy immune system.
- **Vitamin Absorption.** Citrus foods like orange juice are high in vitamin C, which may help boost the absorption of non-heme iron (the iron found in plants like spinach, not meat products). This is great news for young women, female athletes and vegetarians who may be more susceptible to iron deficiencies.
- **Reduce Cancer Risk.** A prominent cancer researcher, Dr. Gladys Block, Ph.D., reports that people with low vitamin C intake (less than 50 mg/day) appeared to have approximately twice the cancer risk, compared to people with higher (greater than 100 mg/day) vitamin C intake.