

# Juice PLUS<sup>®</sup> Published Clinical Research



## Bioavailability and Nutrients

Several researchers have studied the bioavailability (absorption) of key nutrients found in Juice Plus<sup>®</sup> and reported Juice Plus<sup>®</sup> effectively increased plasma levels of antioxidant nutrients and other phytonutrients in children, and in young, middle aged and elderly adults.

Nutrients (02.2017)

Nutrients (01.2017)

Journal of Pediatrics (2012)

Gynecologic Oncology (2012)

Journal of Clinical Periodontology (2012)

Skin Pharmacology and Physiology (2012)

Molecular Nutrition & Food Research (2010)

International Journal of Food Sciences and Nutrition (2009)

Evidence Based Complement Alternative Med (2007)

Asia Pacific Journal of Clinical Nutrition (2007)

Medicine & Science in Sports & Exercise (2006)

Journal of Nutrition (2006)

Clinical Chemistry and Laboratory Medicine (2006)

Journal of the American College of Nutrition (2004)

Journal of Nutrition (2003)

Journal of Human Nutrition and Dietetics (2000)

Integrative Medicine (1999)

Nutrition Research (1999)

Current Therapeutic Research (1996)



## Oxidative Stress and Redox Biology

When your body's antioxidants are overwhelmed by free radicals, you enter a state of oxidative stress. Numerous clinical studies reported increased levels of key antioxidants in the bloodstream after taking Juice Plus<sup>®</sup>. Effectiveness has been measured with exercisers, obese women, smokers and other populations.

British Journal of Nutrition (2013)

Journal of the American College of Nutrition (2011)

Medicine & Science in Sports & Exercise (2011)

Molecular Nutrition & Food Research (2010)

Medicine & Science in Sports & Exercise (2009)

International Journal of Food Sciences and Nutrition (2009)

Applied Physiology, Nutrition and Metabolism (2007)

Asia Pacific Journal of Clinical Nutrition (2007)

Journal of Nutrition (2007)

Medicine & Science in Sports & Exercise (2006)

Journal of Nutrition (2006)

Clinical Chemistry and Laboratory Medicine (2006)

Journal of Human Nutrition and Dietetics (2000)

Current Therapeutic Research (1996)



## Systemic Inflammation

Chronic systemic inflammation is invisible, and can contribute to an increased risk for developing chronic conditions such as cardiovascular disease, diabetes, and cancer. Combined results from several studies show that Juice Plus<sup>®</sup> decreases levels of several key biomarkers of inflammation.

Nutrients (01.2017)

British Journal of Nutrition (2013)

Molecular Nutrition & Food Research (2010)

Journal of Nutrition (2007)



## Immune System

Separate studies were conducted on healthcare professionals with direct patient contact, young law school students, an elderly population, and athletic men. The combined results of those studies show that Juice Plus<sup>®</sup> reduces the severity of upper respiratory challenges, reduces missed work days, and increases the number and activity of immune cells circulating in the body.

British Journal of Nutrition (2011)

Journal of Nutrition (2007)

Medicine & Science in Sports & Exercise (2006)

Journal of Nutrition (2006)

Integrative Medicine (1999)



## DNA and Nutrigenomics

The antioxidants from fruits and vegetables in Juice Plus<sup>®</sup> can help maintain healthy DNA. Combined results from six studies show that Juice Plus<sup>®</sup> reduces DNA damage. Research on nutrition and gene interactions (nutrigenomics) demonstrated that several genes involved in lipogenesis, inflammation, energy and insulin metabolism were changed beneficially after Juice Plus<sup>®</sup> intervention.

Nutrients (01.2017)

Molecular Nutrition & Food Research (2012)

Asia Pacific Journal of Clinical Nutrition (2007)

Medicine & Science in Sports & Exercise (2006)

Journal of Nutrition (2006)

Journal of the American College of Nutrition (2004)

Nutrition Research (1999)



## Heart Health

Combined results show that Juice Plus<sup>®</sup> produces positive effects on several measures of cardiovascular health. Juice Plus<sup>®</sup> helps you maintain normal homocysteine levels, with elevated levels are related to heart attack and stroke. Juice Plus<sup>®</sup> also helps maintain normal elasticity of the arteries, healthy LDL cholesterol levels and protects lipids from oxidative damage.

Journal of the American College of Nutrition (2011)

Evidence Based Complement Alternative Medicine (2007)

Asia Pacific Journal of Clinical Nutrition (2007)

Clinical Chemistry and Laboratory Medicine (2006)

Journal of the American College of Cardiology (2003)

Nutrition Research (2003)

Journal of Nutrition (2003)





## Healthy Skin

Proper circulation is important for healthy skin. It ensures nutrients and oxygen get to your skin tissue, giving it a healthy glow. Juice Plus+® increases skin micro-circulation by 39%, along with boosting skin hydration, thickness, and density.

British Journal of Nutrition (2013)

Skin Pharmacology and Physiology (2012)



## Dental Health

Juice Plus+ has been shown to improve postoperative quality of life and reduce post-surgical morbidity and post-operative complications from lower third molar surgery. Additionally, adults with a history of long-term gum health challenges saw improvement in gum bleeding, plaque build-up, and pocket depth when they combined Juice Plus+® with standard periodontal care.

Clinical Nutrition (2017)

Journal of Clinical Periodontology (2012)



## Quality of Life

A study conducted on ovarian cancer survivors compared subjects consuming 10 servings of fruits and vegetables a day to subjects consuming five servings of produce, Juice Plus+® and Complete by Juice Plus+® Shake Mix. It found that, when paired with a low-fat and high-fiber diet, Juice Plus+® improved quality of life, phytonutrient markers, and cell health. The soy in the Complete by Juice Plus+® also contributed to better protein levels.

Gynecologic Oncology (2012)



## Obesity

In one study conducted at Nemours Children's Hospital, groups of boys, ages 6 to 10, were either given diet instruction alone, or diet instruction and Juice Plus+®. Overweight boys in the Juice Plus+® group saw increased beta-carotene levels, improved insulin resistance, and reduced abdominal fat. Consuming Juice Plus+® also revealed cholesterol and LDL reductions, and an increase in lean body mass in overweight and obese individuals.

Nutrients (01.2017)

Journal of Nutritional Science (2015)

British Journal of Nutrition (2013)

Journal of Pediatrics (2012)



## Lung Health

Juice Plus+ helps improve pulmonary functions, such as forced expiratory flow and diffusion capacity, among smokers.

Journal of the American College of Nutrition (2013)

## Clinical Research Affiliations

- Academic Centre for Dentistry, Amsterdam, Netherlands
- Brigham Young University, Provo, Utah
- Charité University Medical Centre, Berlin, Germany
- Georgetown University, Washington DC
- Heinrich Heine University, Düsseldorf, Germany
- King's College, London, England
- Medical University of Graz, Graz, Austria
- Medical University of Vienna, Vienna, Austria
- Nemours Children's Clinic, Jacksonville, Florida
- Tokyo Women's Medical University, Tokyo, Japan
- University of Arizona, Tucson, Arizona
- University of Birmingham, Birmingham, England
- University of Cambridge, Cambridge, England
- University of Florida, Gainesville, Florida
- University of Maryland School of Medicine, Baltimore, Maryland
- University of Milan, Milan, Italy
- University of Mississippi Medical Center, Jackson, Mississippi
- University of Newcastle, Callaghan, Australia
- University of North Carolina, Greensboro, North Carolina
- University of Parma, Parma, Italy
- University of South Carolina, Columbia, South Carolina
- University of Sydney, Sydney, Australia
- University of Texas Health Science Center, San Antonio, Texas
- University of Texas/MD Anderson, Houston, Texas
- University of Toronto, Toronto, Canada
- University of Witten-Herdecke, Witten, Germany
- University of Würzburg, Würzburg, Germany
- Vanderbilt University School of Medicine, Nashville, Tennessee
- Wake Forest University (NCI-NIH), Winston-Salem, North Carolina
- Yale University-Griffin Hospital, Derby, Connecticut

## Clinical Research Underway

Clinical Research continues to be performed on Juice Plus+ in leading hospitals and universities around the world in the following areas:

- Wisdom Tooth Extraction - University of Birmingham, UK
- Cardiovascular Health - Cambridge University
- Public Health Benefits - University of Padua/University of Colorado
- Microbiome Health - University of Memphis