The Pennington Biomedical Research Center is a world-renowned nutrition research center.

### Mission:

To promote healthier lives through research and education in nutrition and preventive medicine.

The Pennington Center has several research areas, including:

Clinical Obesity Research

**Experimental Obesity** 

**Functional Foods** 

Health and Performance Enhancement

**Nutrition and Chronic Diseases** 

Nutrition and the Brain

Dementia, Alzheimer's and healthy aging

Diet, exercise, weight loss and weight loss maintenance

The research fostered in these areas can have a profound impact on healthy living and on the prevention of common chronic diseases, such as heart disease, cancer, diabetes, hypertension and osteoporosis.

The Division of Education provides education and information to the scientific community and the public about research findings, training programs and research areas, and coordinates educational events for the public on various health issues.

We invite people of all ages and backgrounds to participate in the exciting research studies being conducted at the Pennington Center in Baton Rouge, Louisiana. If you would like to take part, visit the clinical trials web page at www.pbrc.edu or call (225) 763-3000.

Promoting Healthier Lives Through Research and Education in Nutrition and Preventive Medicine





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# The Effect of Depression on Your Heart





- Stress can lead to physiological changes in the brain that can then result in depression. Stress causes atrophy of certain brain cells which then leads to decrease in release of certain chemicals in the brain\*.
- Depression causes thickening of the blood which is detrimental to your heart.
- Depression is associated with an increased risk of coronary heart disease (CHD) incidence in both men and women, as well as CHD mortality in men. It almost doubles the risk of developing heart disease over a 12 year period.
- People who experience depression often are 31% more likely to experience a cardiac event.
- \* Brain Research 639 (1994) 167-170
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- The Journal of the American Medical Association\* states that depression contributes to heart disease indirectly through negative changes in behavior and lack of motivation. This can then lead to poor eating or reduction in physical activity.
- Depression contributes to the risk of heart disease as much as diabetes, high cholesterol, or obesity.
- Patients who are depressed at the time
  of hospitalization for heart conditions are
  two to four times more likely than
  average to die or suffer with further
  cardiovascular events, such as heart
  attack, stroke, or severe chest pain
  during the following year.
- According to the Harvard Mental Health
  Center If a person is extremely
  depressed or anxious, the body's
  emergency response becomes constant,
  which can lead to physiological changes
  that can damage the heart and the blood
  vessels. This can make the heart less
  sensitive to further signals to either
  speed up or slow down.
- \* JAMA. 2008;300(20):2379-2388.



- Research has noted that the type of antidepressants called Selective Serotonin Reuptake Inhibitors (SSRI's) may benefit depressed heart patients and reduce their risk for further heart problems.
- Treating depressive symptoms and increasing physical activity can lead to reduction in CHD risk in individuals.
   Treatment is done by medication or by consultation with a mental health professional.
- For people with heart disease, depression can increase the risk of an adverse cardiac event such as a heart attack or blood clots. For people who do not have heart disease, depression can also increase the risk of a heart attack and development of coronary artery disease.
- Two of the most prevalent health conditions and causes of disability in the US are depression and cardiovascular disease\*. The link between depression and the development of cardiovascular disease is unclear. Depression can lead to noncompliance with medical recommendations, as well as other behaviors that increase health risk.

<sup>\*</sup> Biol Psychiatry. 2003 Aug 1;54(3):248-61.