

***EMPLOYERS GETTING STARTED***  
***On the Road to Mental Health and Productivity***

**MODULE EIGHT**

**HEART DISEASE AND DEPRESSION**  
***Urgent Information for Employees and Their Families***

**Highlights**

This module is information that people need. The Roundtable asks employers to distribute this Module among employees so as to help them inform themselves and their families.

The data linking depression and heart disease is stunning in its implications and in its portrayal of depression, a common mental illness, as a physical condition with physical properties.

This Module says:

- 20% of people who suffer a heart attack show signs of depression at the time and they do not have the same chance of survival.
- Depression may increase blood clotting which impairs the supply of blood and oxygen to the heart. This is the cause of heart attack.
- There is evidence that depression may cause stroke; by treating depression, physicians may be preventing stroke.
- Employees with family members recovering from heart disease, or with a history of it, are encouraged to be screened for depression as a regular feature of managing the health of their heart.

*Knowing the facts and findings contained in this Module could save your life. In one case in 1998, it probably did. In another case in 2004, it did not.*

*It is critical for employers, employees, families, mothers and fathers to become familiar with the links between mental illnesses and major chronic conditions including heart disease and stroke.*

We ask employers to share this information with colleagues, co-workers and family members especially those recovering from heart disease, heart attack or surgery.

**Dr. Wm. Gnam, the Centre for Addiction and Mental Health:** *“The presence of a chronic medical condition (such as chronic pain or physical disability) increases the risk of developing a mental disorder, especially a depressive or anxiety disorder.”*

The risk of developing a mental disorder increases with the severity of other chronic medical conditions. The famous National Co-morbidity Study by Dr. Ron Kessler found that:

- Mental disorders – anxiety and depression – are at least twice as prevalent among those people with these chronic (physical) disorders versus those without.
- The combination which predicts the highest level of role impairment is depression/anxiety and heart disease, ulcers, arthritis and asthma.

### **Depression and Heart Attack**

About 20 percent of the people who suffer heart attacks show signs of a major depression at the time. Heart victims who suffer depression do not have the same chance of surviving a heart attack:

- Depression may predispose patients with damaged hearts to arrhythmia and sudden death.
- Studies suggest that depression may increase blood clotting – which, in turn, can impair the supply of blood and oxygen to the heart. A cause of heart attack.
- Researchers at the famed Montreal Heart Institute say that symptoms of depression among heart patients may predate eventual heart attacks by many years.
- By the end of one year after a heart attack, the mortality rate of those who are depressed is three times higher than those heart victims who are not depressed.
- A condition called “vital exhaustion” – fatigue, irritability and poor morale – predate heart attack(s) by several months.
- Study at Columbia University says “it is amply clear that depression is strongly associated with more frequent and more malignant cardiovascular disease. It is likely that depression’s effect involves all vascular disease including stroke.”
- Researchers at the U.S. National Center for Health Statistics report that a high level of depression increases the risk of first-time stroke for men by 56 per cent and women by 95 per cent.

- The Yale Cardiovascular Centre says:
  1. There is evidence “to support the idea that depression may cause a stroke or other cardiovascular events. By treating depression, physicians may be able to lower the incidence of stroke.”
  2. Evidence from medical outcomes studies suggests that later in life, depression and heart disease may be synergistic.

### **Functional Limitations**

- In one study, functional limitations were “significantly worse” for those suffering both depression and an advanced heart condition. A Rand Corporation study concludes that depression can mimic chronic medical conditions.
- Research in the U.S. says that individuals with conditions such as cardiac disease, cancer and stroke face a greater risk of depression.
- Those suffering one or more chronic medical disorders have a four-in-ten chance of having suffered a recent psychiatric disorder, about twice the population average.

### **What Kills**

Researchers in Finland found that men – without a prior history of heart attack – but with elevated levels of depression – were more likely to have a first heart attack.

This was taken to mean, depression is an independent risk factor in cardiac trauma and according to the Montreal Heart Institute depression is an independent factor in the risk of death six months after heart attack.

### **Depression and Behaviour**

What factors produce a fatal event? What are the “biological mechanisms” that swing into action? One is behaviour: the patient’s failure to do the things necessary to contain the risk of further cardiac trauma, such as diet, smoking, drinking, and stress.

Medical scientists are looking at the effects that prolonged and chronic negative emotions have on recovery from heart disease – hostility, extreme competitiveness, attempts to dominate, pessimism, hopelessness.

### **Depression and Heart Function**

Other implications:

- Depressed cardiac patients experience what the experts call “decreased heart rate variability” over a 24-hour period. Translated, the heart’s rhythm is abnormal. The depressed person’s heart, in effect, never sleeps.
- Stress interrupts the interplay among the brain, endocrine system (glands), and organs that produce and release hormones and the immune system releasing compounds that cause inflammation.
- Increased blood pressure narrows blood vessels and causes blood to become sticky and more likely to clot, increasing the risk of heart disease and stroke.
- A layman might think depression is a blood disorder when he or she learns that it can increase the risk of blood clotting and exacerbate the risk of heart attack.
- According to Columbia University, “the direction of these changes is such that one would anticipate an increase in sudden death. This could explain a good part of the increased mortality associated with depression following (a heart attack).”
- Other studies suggest alterations in the metabolism of depressed patients may increase the risk of vascular disease.
- It is conceivable, according to some studies, that atherosclerosis – the degeneration and hardening of the arteries and valves of the heart – could be a cause both for depression and heart disease.

### **Depression and Infections**

Research indicates:

- Our immune and nervous systems talk to each other. Emotional stress, among some of us, will suppress our capacity to ward off physical infection. Depression has links to thyroid disease.
- Fluctuations or changes in the nervous system are considered an integral part of serious depression. There is also evidence that such fluctuations can cause problems in the ventricular system of the heart.
- Those who are depressed are less capable of defending themselves against germs and viruses.
- Middle-aged men who feel hopeless or think of themselves as failures may develop narrowing of the arteries faster.
- Conversely, the mind (our beliefs) can process hope and foster well-being. It is well established that a person’s emotional and psychological state can impair or uplift the functioning of the human heart.

**Based on this information, the reader is advised to:**

- Ask your family doctor about the advisability of screening a family member for depression who is recovering from heart problems but the “blues” have persisted for weeks or months. It could represent the onset of a depressive episode.
- Inquire about compatibility of medications for depression and heart disease if and when they are prescribed concurrently.
- Sources of information on the links between heart disease and depression are the Montreal Heart Institute, Ottawa Heart Institute, Toronto General Hospital and St. Michael’s Hospital in Toronto.