

Coffee reduces risk of type 2 diabetes

Written by Dr Harold Gunatillake-Health Writer

Coffee was considered the most used addictive drug in U.S. and being unhealthy in excess had a stigma not to drink too much of it. You were warned to drink three or less cups of coffee per day as caffeine and other ingredients in coffee were harmful.

Today, the researchers tell us that drinking three to four cups of coffee a day will reduce the risk of metabolic disorders by 25 per cent. Coffee lovers can now raise their cups and perhaps eyebrows-at the recent news (in the *Journal of Agricultural and Food Chemistry*), that not only it may reduce the incidence of type 2 diabetes, it also may lower the cholesterol levels due to the soluble fibre content.

What will they tell us tomorrow only God will know? Sydney's George Institute for International Health has found each extra cup of coffee per day was linked to a 7 per cent reduction in the risk of developing diabetes.

"In those individuals drinking more than three to four cups of coffee a day, the reduction in risk of developing diabetes was even greater," said Assoc Prof Rachel Huxley, of Sydney's George Institute " ... up to 40 per cent in those drinking more than six cups a day compared with non-coffee drinkers.

"Interestingly, similar reductions in risk were also observed for tea and decaffeinated beverages suggesting that any diabetes-sparing effect is not driven primarily through caffeine, as was previously thought."

Further findings are that studies suggest that in addition to reducing the risk of getting diabetes, also reduce Parkinson's disease, gall bladder disease, heart disease and even of suicide.

It was reported in the March 10th issue of the *Journal of the American Medical Association*, in 2009, that studies done in Finland- where coffee consumption is higher than anywhere else in the world, revealed a link between drinking coffee and type 2 diabetes.

The researchers conducted surveys of 6,974 men and 7,655 women, and found that diabetes risk among women drinking three to four cups a day decreased by 29 percent, while risk dropped by 79 percent for women who drank 10 or more cups a day. In men, three to four cups decreased risk by 27 percent and 10 cups lowered risk by 55 percent.

Frank Hu, MD, PhD, an associate professor of nutrition and epidemiology at Harvard School of Public Health, coauthored another long-term study published in January that also found that coffee consumption reduced type 2 diabetes risk. Below, Dr. Hu discusses the many possible health benefits associated with drinking coffee.

Studies have found that long-term higher consumption of regular coffee is associated with decreased risk of type 2 diabetes. There are a couple of reasons why that might be true. One is that coffee is not just caffeine. Coffee has large amounts of other ingredients, for example, antioxidants and minerals like magnesium. And those minerals and antioxidants actually are beneficial for blood sugar metabolism and insulin sensitivity. [In type 2 diabetes, people either don't produce enough insulin to regulate blood sugar or the body's cells ignore the insulin.] So it's possible that it's the other ingredients in coffee rather than caffeine that protect against diabetes.

Whatever the mystery ingredient is, it cannot be caffeine, as decaffeinated coffee and tea were also found to be protective, although to a lesser extent.

Writing in the *Archives of Internal Medicine* in 2009, they said the implications would be "substantial" if it were shown that coffee was the causal factor.

"The identification of the active compounds of these beverages would open up new therapeutic pathways for the primary prevention of (diabetes)," they wrote. "It could also be

envisaged that we will advise our patients most at risk for diabetes to increase their consumption of tea and coffee in addition to increasing their levels of physical activity and weight loss."

And, despite coffee's reputation for being bad for the heart, recent epidemiologic studies haven't found a connection; some even suggest coffee can be protective. A study in February's *American Journal of Clinical Nutrition* reported that healthy people 65 and over who drank four or more cups of caffeinated beverages daily (primarily coffee) had a 53 percent lower risk of heart disease than non-coffee-drinkers.

Immediate effects of drinking coffee tend in most people to raise the heart rate and blood pressure temporarily. Coffee makes our cells more resistant to insulin. "Such effects are short lived, as people develop a tolerance," explains Frank Hu, M.D., Ph.D., associate professor of nutrition and epidemiology at Harvard School of Public Health, who has studied coffee extensively.

Coffee has antioxidants like chlorogenic acid (related to polyphenols in grapes) and trigonelline that may help quell inflammation, which may explain coffee's effect in inflammation-related diseases like diabetes and heart disease. Magnesium and other minerals and antioxidants are beneficial for blood sugar metabolism and insulin sensitivity.

Caffeine in coffee increases energy expenditure like chilies, and may help to reduce body weight in overweight individuals. Coffee is also an appetite killer, so should be a regular beverage for those who want to go on a low-calorie diet.

People who drink lots of coffee have an unhealthy lifestyle, eating unhealthy foods, and are heavy smokers, compared to non-coffee drinkers. This is reflected on coffee as an unhealthy beverage.

However, coffee is being proved healthy and not harmful, but one should not forget the irritability, insomnia, constipation it may cause in some people, in addition to the raised heart rate and increased blood pressure. These are of course very temporary side effects.

These therapeutic pathways of drinking coffee and tea are still in the early trial stages, and with further research the beneficial effects for heart disease and diabetes when further substantiated, would be a great benefit to these people.

The research so far indicates that coffee and tea are beneficial to reduce the risks and are not proved any benefit for those suffering from heart disease and diabetes.