Article 18*

The Non-Medicated Life:
The Role of Wine, Beer and Spirits

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This is the eighteenth in a series on optimal diet and lifestyle to help prevent disease and responsibly avoid an over reliance on medications. This complementary approach is based in the medical evidence of the most successful research trials and the best science available. Any planned change in diet, exercise or treatment should be discussed with and approved by your personal physician before implementation. Consultation with a registered dietitian is strongly advised.

Medicines are a mainstay of American life and the healthcare system not only because they are perceived to work by the individual taking them, but also because they can be shown to work by the objective assessment of scientific study. Clinical research trials have shown that some of the medicines of Western science may reduce heart attacks, strokes and cardiovascular death. It is not always appreciated that informed diet and lifestyle may accomplish many, if not most, of the benefits of medication. This may be true for the moderate consumption of alcohol.

Moderate intake of wine, beer or spirits by most individuals may be shown to decrease the risk of total mortality, coronary artery disease, stroke and diabetes. It is also true, however, that moderate or even any use in certain individuals may increase risk and thus should be avoided. It is therefore important for those currently using or contemplating the use of alcohol to understand the issues, speak with their physician and determine if alcohol may be beneficial and if so the optimal way it may be used to reduce risk.

It is best to begin by identifying those individuals for whom alcohol may be a risk and should be completely avoided. Individuals below the age of 21 should not drink. The reasons are multiple but the most important, perhaps, is the risk of automobile trauma and death in a group of individuals who in this age range are also first given the privilege of driving. Safely balancing drinking and driving is a challenge for all ages, but the risk in those under 21, on the basis of statistics, is unacceptably high.

Likewise pregnant women, or women attempting to become pregnant, should not drink alcohol. In pregnant women even moderate alcohol consumption increases the risk of spontaneous abortion, low birth weight, growth retardation and neurobehavioral deficits. Heavy alcohol use may lead to fetal alcohol syndrome with severe growth retardation and central nervous system dysfunction.

While your own physician is the best person to consult about your personal health risk in consuming alcohol, there are additional groups who should, generally, avoid the consumption of alcohol. These include but are not necessarily limited to: 1) those with a personal or strong family history of alcoholism, 2) those with a personal or strong family history of breast cancer, 3) those with a history of hemorrhagic stroke, 4) those with diseases of the liver or pancreas, including chronic hepatitis, 5) those with pre-malignant conditions of the oral cavity, throat and upper gastrointestinal tract including Barrett's esophagus, 6) those with markedly elevated triglycerides, and 7) those on certain medications such as Coumadin or warfarin.

As a general rule, if one has known medical

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problems or takes prescription medication it is strongly recommended that one discuss the risks and benefits of alcohol consumption with one's physician even if alcohol has been consumed in the past without apparent problems. Non-drinkers should not start drinking for presumed health benefit without a thorough discussion of the benefit and risk with their physician. Those who operate machinery or engage in activities requiring dexterity and concentration should refrain from prior alcohol use, as injury and trauma are significant risks of even moderate consumption.

For most of the remaining population, the moderate consumption of alcohol has the potential for health benefit. But what is moderate? Although the answer is influenced by body size, sex and percentage of body weight composed of water, consumption of between one-half to one drink per day is probably optimal. A drink is defined as containing approximately 12 to 15 grams of ethanol; in general this amount is contained in four ounces of wine, 12 ounces of beer or one and one-half ounces of hard liquor.

There is a lower recommended intake of alcohol for women because of an increased risk of breast cancer. Women should consume no more than one drink per day and preferably less. In one large study the risk of breast cancer was increased 41-percent for women consuming two to five drinks per day and was present regardless of the type of alcohol consumed. This risk was significantly less in women consuming one-half to one drink per day. Data from the Nurse's Health Study suggests consuming 300 micrograms per day of folic acid may decrease or attenuate this risk, but more study is needed.

The potential benefits of moderate alcohol consumption are significant. Moderate consumption of alcohol has been shown to lower overall or total mortality when compared to those who abstain or drink heavily. This mortality benefit differs in different populations of moderate drinkers. Much of this benefit appears to result from a reduction in cardiovascular mortality. Individuals at higher cardiovascular risk benefit more than those at lower risk. In general, this has meant that moderate drinking benefits an older individual more than a younger individual. In men, the benefit is greatest with elevated LDL (low-density lipoprotein) or bad cholesterol over 200 milligrams per deciliter.

In individuals with known coronary artery disease, moderate alcohol consumption appears to decrease mortality by 20-percent. As suggested in the Physician's Health Study this may occur as a consequence of a reduction in sudden death in those who drink moderately. Additionally, moderate alcohol consumption decreases ischemic stroke or the type of stroke caused by an unstable cholesterol plaque in a brain artery. Hemorrhagic stroke, which is a burst blood vessel in the brain, appears to be unaffected by moderate drinking, but is increased with heavier use of alcohol. Finally, moderate consumption of alcohol decreases the risk of developing diabetes. Alcohol appears to lessen insulin resistance by improving the body cell sensitivity to insulin resulting in a lower level of insulin.

How alcohol is consumed may also be important. The risk of heart attack appears to be more effected by the frequency than the quantity. Thus, a small daily amount in the range suggested above appears superior to consuming the same total weekly amount on fewer days. Indeed, binge drinking appears to increase the risk for sudden death. Additionally, despite the suggestion that red wine is superior to other forms of alcohol because it contains substances which may act to reduce the oxidation within cholesterol plaques, there is at present no conclusive evidence that the type of alcohol matters with regard to potential health benefits.

In summary, the potential benefits of moderate alcohol consumption are significant, especially the reduction in the risk of heart attack and cardiovascular death. For any given individual, however, the benefits need to be weighed against

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the risks and a discussion with one's physician is recommended. By weighing risk and benefits and exercising common sense, the moderate and judicious use of alcohol may be seen as a pleasurable way to reduce cardiovascular risk and decrease reliance on the proverbial bottle of pills to address one of our most significant health care problems.

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