**Medical Column January 2015**

**Cheers to the New Year!**

**(Maybe not so fast.)**

 “Doc, I’ve been reading about how red wine is supposed to be good for your heart. What do you think?”

 That’s when I pull up a chair, get comfortable, and say, “Well, let’s talk about that.”

 Alcohol can be a big problem. Twenty-five years in the ER has shown me just about everything that can go wrong with too much beer and wine and too little common sense. This simple molecule has caused a lot of pain and grief, and will continue to do so.

 On the other hand, there exists persuasive information regarding the benefits of moderate alcohol consumption and the health of our hearts and blood vessels. Let’s take a look at those, and then at some of the obvious and not-so-obvious hazards of drinking. Then I’m afraid the decision to drink or not to drink will be up to you.

 First, we need to establish some definitions. What is *moderate* alcohol consumption as opposed to *heavy*? This is important to understand, since we will be referring to this termination frequently.

 Interestingly, the definition changes from country to country. If you want the loosest delineation, you’ll need to move to Japan. And the strictest? That would be Great Britain. For this discussion, we’ll use the parameters established for the U.S. of A.

 We’re going to define “one drink” of an alcoholic beverage as containing 14-15 grams of alcohol (ethanol). This is the equivalent of one 12 ounce beer, one 5 ounce glass of wine, and 1.5 ounces of 80 proof liquor. (As an aside, I never treated a patient in the ER who admitted to drinking more than “two beers”. No matter that he wouldn’t stand, talk coherently, or focus his eyes.)

 With regards to classifying the level of drinking, we will use these guidelines:

* Moderate drinking (with a low risk for alcohol problems)
	+ Women – 1 drink/day
	+ Men – 1-2 drinks/day
	+ Those of us over 65 years – 1 drink/day
* Heavy drinking (at risk for alcohol problems)
	+ Women – more than 7 drinks/week or 3 drinks/occasion
	+ Men – more than 14 drinks/week or 4 drinks/occasion
* Binge drinking
	+ Women – 4 or more drinks in one drinking occasion
	+ Men – 5 or more drinks in one drinking occasion
	+ Some researchers define “binge drinking” as consuming three or more glasses of alcohol within one to two hours.

A couple of points to consider: It might seem unfair that men are allowed to drink more than women, but that’s how our bodies work, or work differently. Secondly, place a wine glass on your kitchen table, pour five ounces of water into it, and take note of the amount. It’s not much, but that’s one drink of wine. And for a woman, I’m afraid that’s your daily limit. Lastly, when we talk about the potential benefits of alcohol, we’ll be referring to the consumption of wine and beer. “Hard spirits”, while still alcohol, have not been extensively studied as to their health benefits. However, problems with their abuse have been well-documented, and will be included in our discussion of “heavy drinking”.

Let’s take a look at the good that moderate alcohol consumption might accomplish. We need to keep in mind that we’re talking about the “moderate” consumption of alcohol. Here’s what we know.

* Light to moderate use may reduce the risk of coronary artery disease by as much as 70%. This benefit has been found in multiple groups, including those with risk factors for heart disease, those with no disease to start with, and those over the age of 65.
* Regular consumption has been associated with a reduction in the incidence of heart attacks.
* One drink a day for women and two for men confers an 18% reduction in deaths due to cardiovascular disease.
* Light to moderate alcohol intake may help prevent the development of heart failure.
* The evidence regarding stroke is equivocal. Some studies have shown that light alcohol use (less than 3/4 drink per day) may reduce the risk of a stroke. On the other hand, higher levels of consumption may increase the risk.
* Alcohol appears to lower the risk of peripheral vascular disease.
* The data on the risk of dementia and the use of alcohol are mixed, though several studies have demonstrated a lower risk and less decline in memory with low to moderate alcohol consumption.
* The risk of diabetes is reduced in people with moderate alcohol use, and insulin sensitivity is increased (a good thing).
* Moderate intake lowers the risk of developing gallstones.

That seems like a lot of beneficial things happening here, and it is. But what’s the mechanism? How does alcohol accomplish this?

While many factors remain uncertain, we do know that moderate alcohol use increases serum HDL levels, possibly by as much as 10%. At the same time, it impacts our clotting systems in a favorable manner, making it less likely there will be bleeding into the arterial plaques that may line the inside of our arteries. We just mentioned the positive influence on insulin sensitivity. This has multiple benefits, including how we handle our blood sugar level and our lipids. And there is good evidence that alcohol acts as an anti-inflammatory, further cooling things off in our blood vessels. That can also be happening due to its anti-oxidant effects.

Now, what’s the downside? First, there are some of us who shouldn’t be drinking *any* alcohol due to a variety of medical conditions—gastric ulcer disease and chronic pancreatitis are two examples. Those with a family history of substance abuse or who have a bipolar disorder should also avoid alcohol. For the rest of us, anything above moderate use poses some real problems and exposes us to definite and dangerous hazards. Here’s what we’re talking about.

* Heavy alcohol consumption is linked to the development of the following cancers: esophageal, liver, head and neck (mouth, larynx, and pharynx)
* Even small daily amounts of alcohol may be related to the development of breast cancer. The risk is minimal but definite with small volumes, and it appears to be dose related, with a 10% increase in risk with every additional daily drink.
* All of the cardiovascular benefits are negated by heavy alcohol consumption—more heart attacks, more strokes, more coronary artery disease. Binge-drinking is associated with a compounded risk for all of these as well.
* More than two drinks a day can double your chance of developing high blood pressure.
* The incidence of atrial fibrillation is increased with heavy use or binge-drinking.

So that’s what we know, at least for now. There are some real benefits from controlled, moderate consumption of alcohol. And there are some real dangers from heavy use. Each of us will have to weigh the facts and make our own decision.

With regard to which type of alcohol provides the most benefits—wine, beer, or hard spirits—it really doesn’t seem to make much difference. Most of the studies have involved wine (especially the red varieties) and beer. When I counsel my patients, I’m talking about these two, and not the 80 proof stuff.

So how *do* I counsel my patients? Current conventional wisdom, with which I agree and follow, would be this:

* If you don’t currently drink, don’t start because of any of these potential benefits.
* If you currently drink, be absolutely aware of what constitutes “moderate alcohol consumption” and stick with that.
* If you read this and have an uneasy feeling of being in the “heavy” use or “binge-drinking” group, you’ll need to get some professional help. It’s that important.

That’s enough information to help you make an informed decision. Just be smart.