

Benefits of Wine Consumption: Spiritual and Scientific Aspects

by Olga Dynina

Rambam in the second chapter of his great work, the Mishne Torah wrote, “How does one come to love and fear G-d? When a person contemplates G-d’s great and awesome deeds and creations, and sees, thereby, His infinite and incomparable wisdom, immediately one is seized with a feeling of love and praise and great longing to know G-d.”¹ Clearly Rambam indicated that the study of the universe could enhance the study of Torah. Rav Moshe D. Tendler based on the above principal wrote, “G-d fashioned us with the spark of divine intelligence that gives us the ability to perceive the order in nature.” He further added that the Torah is similar to modern science because science, like the Jewish religion, is developed and based on the conviction of the existence of orderly nature.² It therefore makes sense to conclude that all the miracles of the Creator which are described in the Torah are based on natural phenomena.

The alliance of Torah and science is seen from the Talmudic passages related to the beneficial effects of wine. As stated in Talmud *Berachot* 36b: “Rava would drink wine on the eve of Passover in order that he might get an appetite and eat much *matza* (in the evening).” The Talmud further explained that “a large quantity of wine sharpens the appetite, a small quantity satiates.” Wine, moreover, has an advantage over bread. Wine does not only nourishes like bread but also it “gladdens the heart” (Talmud *Berachot* 35a). In the Talmud *Pesachim* 42b it is noted, “Aged wine is good for the entire body.” The Talmud Yerushalmi (*Pesachim* 10:37b) warned, however, that one should only drink wine during the meal, as after or before the meal it intoxicates. In *Nedarim* 9:8 the Rabbis pointed out that aged wine is good for the intestines. As noted in *Bereshit Rabbah* 98:2, wine is good for the bones of a person: “the bones of those who drink

water are black, and those who drink wine, are red.” The passage from Chap. 23 of Proverbs indicated that alcohol decreased blood-clotting ability: “excess of alcohol causes spontaneous bleeding.”³ Talmud *Baba Bathra* 58b states, “Someone who drinks with moderation should avoid illness. When one has no wine (in the house) he is forced to use drugs.” Wine not only has beneficial physiological effects on people, it induces psychological benefits as well. For example, it creates euphoria in depressed people. In Proverbs 31: 6-7 it is indicated, “give wine to drink to one with a bitter soul so that he can forget his affliction and not remember his poverty anymore.” Since Jews are commanded to serve the L-rd with “joyfulness, and with gladness of the heart” (Deuteronomy 28:47) the Zohar *Bamidbar* 189b noted “there is no holiness except with wine, there is no blessing, except with wine, in a place where joy dwells.” The Talmud not only advises to drink wine, it condemns those who abstain. Talmud *Pesachim* 109a noted: “There is no joy without wine.” Weindling³ observed that there are many passages in the Talmud expressing that wine does not only make a person happy, but it also sharpens the mind (Talmud *Eiruvin* 65a). It is also stated in *Pesachim* 111b that at low amounts alcohol improves the eyesight. An excess of wine, on the other hand, leads to decline of the vision. “Rabbi Joseph stated that three things cause defective vision: drinking too much wine from the barrel...” is one of them (*Pesachim* 111b).

Modern scientific literature describes many advantages to drinking wine, many of which parallel the benefits described in the Talmud, which was written in 500 CE. For example, a report in a leading scientific journal confirmed a statement Talmud *Berachot* 36b, where wine is noted both to increase and decrease the appetite. The study reported in *Science* 218 (October 29, 1982): 491 stated that in an investigation with rats:

Glucose, when infused at a low rate, one milliliter per minute, produced a decrease in food intake. When glucose was infused at a rate of three milliliters per

Olga Dynina, a junior at Stern College for Women, is majoring in biology.

minute, the rats doubled their food intake.²

In the 20th century, wine has been proven to prevent coronary disease and cancer, and to improve mental, bone, and eye health in the elderly. Modern science therefore confirmed the statement in Talmud *Pesachim* 42b that wine is good for entire body.

Let's now look at each health benefit of wine separately. Platelet aggregation contributes to the pathogenesis of thrombosis and ischemic vascular disease, such as myocardial infarction. Development of thrombosis can be prevented by the inclusion of the phenolic compound, trans-resveratrol, in the diet. This chemical, present in red wine, serves as a powerful inhibitor of human platelet aggregation and serotonin secretion. A recent study suggested that the inhibitory effects of trans-resveratrol on clotting are similar to those of aspirin.⁴ Certainly, this research finding is in agreement with the Proverbs' statement that alcohol decreases the blood's clotting ability.

Likewise, according to Klatsky,⁵ a researcher in the area of cardiology, coronary artery disease (CAD), which is due to arteriosclerotic narrowing of the major coronary arteries, can be reversed by consumption of moderate amounts of wine. Arteriosclerotic lesions are characterized by lipid deposits that develop into plaques with soft cores. Thrombosis in narrowed vessels frequently plays a critical role in major pathological events, such as acute myocardial infarction or sudden death. Klatsky's research has shown that moderate drinking, of two or three standard glasses of wine a day, raises the high-density lipid (HDL) cholesterol level. The HDL proportion of blood cholesterol, also known as the "good" cholesterol, is inversely related to the incidence of coronary atherosclerosis. HDL cholesterol operates protectively in CAD by removing lipid deposits in the blood vessels, thereby, preventing the progression of atherosclerosis. According to Klatsky⁶ the presence of alcohol in wine is responsible for elevating the HDL cholesterol level. Furthermore, a study conducted by a group of French researchers, which excluded participants that had pre-existent conditions potentially related to coronary diseases such as hypertension, diabetes, and gout, supported the hypothesis of an inverse relationship between alcohol consumption and risk of coronary diseases.⁷ In addition, Klatsky⁵ observed that moderate and light drinkers over the age of 60 years had the most dramatic decrease in development of coronary disease and mortal-

ity rate due to heart attack. An independent study conducted in Spain suggested that the increased cerebrovascular disease mortality (CVD) in the southern and eastern Mediterranean coast provinces in 1975-1979 and again in 1989-1993 was presumably due to lower consumption of fruits, wine, and fish.⁸

Now let's look at how wine can prevent cancer formation. According to Jang and Cai⁹ trans-resveratrol has cancer chemopreventive activity. Trans-resveratrol functions mainly by reducing free radical formation in cells and thereby inhibiting the events associated with tumor initiation, promotion, and progression. Trans-resveratrol acts as an antioxidant, antimutagen, and inhibits cyclooxygenase and hydroperoxidase functions, thus preventing the promotion of cancer. Also trans-resveratrol, was found to decrease human promyelocytic leukemia cell differentiation, and to inhibit the development mammary gland cancer lesions in carcinogen-treated mice.

Wine not only has beneficial physiological effects on people, it induces psychological benefits as well.

Another beneficial aspect of wine is that it sharpens the mind of the elderly. Indeed, this effect of wine was recorded in the Talmud in 5th century CE and only rediscovered by French scientists 15 centuries latter. Only at the end of 1990s did the French researchers note the inverse relationship between moderate wine drinking and incident dementia. This decrease of mental health deterioration could not be explained by medical, psycholog-

ical, or socio-familial factors and they concluded that it was moderate alcohol consumption that lowered the incidence of vascular dementia, a mental function deterioration second only to Alzheimer's disease. Furthermore, mild and moderate wine consumption was reported to reduce the deleterious effects on cognition due to reduction of mental activity at old age.¹⁰ The study conducted by Lemenshow¹¹ moreover showed an association between wine consumption and a decrease in Alzheimer's disease. This finding, however, was only applicable to moderate or heavy wine drinkers.

Bereshit Rabbah 98:2 indicated that wine improved the health of the bones. In the end of 20th century scientists finally confirmed this Talmudic statement. The study by Felson and Zhang¹² revealed that alcohol intake increased bone mineral density in elderly men and women. In particular, women who drank...

At least 7 oz per week of alcohol had higher bone densities at most sites (4.2-13.0% range with 7.7% average differences across all sites) than women in the lighter

category of intake (<1 oz). Men who were heavy drinkers (>14 oz per week) also had higher bone densities than light drinkers, but the difference was less than in women (3.9% average across all sites).

The authors concluded that alcohol intake of at least 7 oz per week increased the bone density in postmenopausal women, presumably due to alcohol augmentation of estrogen levels.

In addition to bone strengthening ability, wine was found to improve eyesight in the elderly. A clinical investigation by Obisesan et al.¹³ showed a negative association between wine consumption and age-related macular degeneration (AMD). This was note worthy as AMD is the leading cause of blindness in adults upon the age of 65 years. Since AMD shares its pathological pathways with cardiovascular diseases, the beneficial effects of wine extend to AMD. The progression of heart disease and AMD was lowered by reducing platelet aggregation and decreasing the levels of serum cholesterol due to consumption of alcohol.

Likewise Perry and Wannamethee¹⁴ confirmed the 1500-year-old statement that wine is good for the intestines. Their research revealed a nonlinear relationship between alcohol intake and diabetes. These scientists observed the lowest risk for development of non-insulin dependant diabetes among moderate drinkers relative to the baseline group of occasional drinkers. More evidence continues to emerge revealing that phenolic antioxidants in wine eradicate those food-borne bacteria causing stomach ailments, such as food poisoning, dysentery and diarrhea, and also aid in digestion.¹⁵ A six-year Harvard study of 45,000 men found that consumption of several beverages, including coffee, tea, beer, and wine, reduced the incidence of kidney stone formation, with wine proving 39% more effective than the other drinks. Other studies have shown that two glasses of wine with meals lowers

blood pressure for up to four hours. And light, dry wines, which are low in alcohol, have a diuretic effect that promotes the elimination of salt, urine, and uric acid for those on salt-restricted diet¹⁶.

Moreover, wine has long been noted to improve the mental well-being of people, as has been stated in Proverbs 31:6-7. As recorded by Klatsky, drinking of wine was associated with a decreased perception of pain. In other studies, wine was found to improve the mood of depressed people making them excellent candidates for moderate wine consumption.⁵

Despite the various benefits of wine one has to be cautious not to abuse it. As noted in various Talmudic sources "wine is one of the eight things, which are beneficial in small amounts but harmful in excess."¹⁷ In fact, the premature death of sons of Aaron was caused by their drunkenness while performing the Temple service (*Vayikra Rabbah* 20:9). The consequences of intoxication are exactly opposite those of the positive aspects of wine consumption. For example, psychic after-effects of excess wine, as described in the Talmud, include hallucinations, impairment of vision, the feeling of seasickness, and apathy. Besides psychological problems, modern science also associates with alcoholism various physical ailments, including cirrhosis, liver cancer, and heart disease.⁵ In addition, driving while intoxicated increases the risk of automobile accidents.

According to one midrashic tradition, excess consumption of alcohol and the origin of the first sin were related: the tree of knowledge of good and evil may have been the grape vine, and partaking from this tree for the first time made Adam intoxicated. According to the same tradition, in the messianic era people will enjoy alcohol without fear of becoming addicted to it.³

So L'chaim - drink to your health but be very cautious. **DH**

Acknowledgements:

Appreciation is expressed to Rabbi E. Kanarfogel and Dr. Babich for reviewing this manuscript.

Notes:

1. Maimonides, Moses. Mishneh Torah:Hilhot Yesodei HaTorah. trans. R' E. Touger. (Jerusalem: Moznaim Publishing Corporation, 1989).
2. Tendler, Moshe D. "Torah and Science: Constructs and Methology." Torah U'madda Journal 5:168-181 (1998).
3. Weindling, Gerald. "Alcohol and Drunkness in the Bible and in the Talmud." Koroth 9: 230-240 (1985).
4. Rotondo, Serenella and Rotilio, Domenico. "Red Wine, Asperin and Platelet Function." Schattauer Verlagsgesellschaft mbH (Stuttgard) 76: 813-821 (1996).
5. Klatsky, Arthur. "Alcohol and Mortality." Annals of Internal Medicine 117: 646-654 (1992).
6. Klatsky, Arthur. "Epidemiology of Coronary Heart Disease - Influence of Alcohol." Clinical and Experimental Research 18: 88-96 (1994).

Notes:

7. Rimm, Eric. "Prospective Study of Alcohol Consumption and Risk of Coronary Disease in Men." The Lancet 338: 464-468 (1991).
8. Guallar-Castillon, Pilar. "Consumption of Fruit and Wine and the Decline in Cerebrovascular Disease Mortality in Spain (1975-1993)." American Heart Association. 1556-1560 (1998).
9. Jang, Meishiang and Cai, Lining. "Cancer Chemopreventive Activity of Resveratrol, a Natural Product Derived from Grapes." Science 275: 218-220 (1997).
10. Orgogozo, J.M. and Dartigues J.F. "Wine Consumption and Dementia in the Elderly: a Prospective Community Study in the Bordeaux area." Memoire 153: 185-192 (1997).
11. Lemeshow, Stanley and Letenneur, Luc. "The Association between Wine Consumption Dementia in the PAQUID Study." American Journal of Epidemiology 148:298-306 (1998).
12. Felson, David and Zhang, Yuqing. "Alcohol Intake and Bone Mineral Density in Elderly Men and Women." American Journal of Epidemiology 142: 485-492 (1995).
13. Obiseson, Thomas. "Moderate Wine Consumption is Associated with Decreased Odds of Developing Age- Related Macular degeneration in NHANES-1." Journal of the American Geriatrics Society 46: 1-7 (1998).
14. Perry, Ivan and Wannamethee, Goya. "Prospective of Risk Factors for Development of Non-insulin Dependant Diabetes in Middle Aged British Men." British Medical Journal 310: 560-564 (1995).
15. Waterhouse, Adrew. "Is it Time for a Wine Trial?" American Journal for Clinical Nutrition. 68: 220-221 (1998).
16. Soleas, George. "Wine as a Biological Fluid: History, Production, and Role in Disease Prevention." Journal of Clinical Laboratory Analysis 11:287-313 (1997).
17. Preuss, Julius. Biblical and Talmudic Medicine. trans. Fred Rosner. New York: Sanhedrin Press, 1978.