DEDICATION

We dedicate this issue to Elizabeth Isaacs Gilbert z"l who served as the first Dean of Students at Stern College for Women from the day of its inauguration in 1955 until 1967. Dean Gilbert, the daughter of Rabbi Philip Klein and the great-granddaughter of Rabbi Samson Raphael Hirsch, was a prominent member of the administration who set high standards for student conduct and served as a role model for hundreds of women. May her memory always serve as a blessing.

WINE, APPLES, AND DATES

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For spiritual Jews, the periods prior to, during, and after *Rosh HaShanah* are intense, with individuals asking for forgiveness and praying for a happy and healthy New Year. For gastronomic Jews, the highlight of *Rosh HaShanah* is its fine foods and superb meals. For Jews combining both traits, the traditional holiday foods, served in plentiful portions, are symbolic omens for the coming year (Horayos 12b) and serve to strengthen the spiritual mindset of the observant Jew. This article discusses some Talmudic thoughts, coupled with medical information, on wine, apples, and honey – food items consumed on *Rosh HaShanah*

Wine

All meals of the major Jewish holidays, including *Rosh HaShanah*, commence with *kiddush* (the sanctification of the holiday with wine), *netilot yadayim* (the ritual washing of the hands), and *hamotzi* (the blessing of the bread). Wine, the first food item consumed at holiday meals, "gladdens the heart" (Tehillim 104:15).

Wine has medicinal properties, as noted in Bava Basra (58b), "At the head of all cures am I, wine. In a place where there is no wine, there, medicinal herbs will be required" to cure diseases. Yesterday's medicinal herbs are today's pharmaceuticals; wine has pharmacological properties mimicking therapeutic drugs. For example, resveratrol, a polyphenolic antioxidant in red wine, mimics aspirin; both inhibit aggregation of blood platelets and play a role in preventing thromboses and myocardial infarctions [1].

Rav Huna stated, "If one drinks wine regularly, even if his heart is closed as that of a virgin, wine will open it" (Bava Basra 12b). Furthermore, as stated in Zechariah (9:17), "An old wine will open the mouths of the maidens in song." Rav Huna's statement implies that the heart, the symbol of emotions and feelings, is opened by wine, causing an inhibited person to express inner feelings. However, perhaps Rav Huna's statement can be taken literally: the regular consumption of wine, albeit in moderation, causes the heart and its accompanying blood vessels to remain open. There is much information in the literature to suggest that consumption of red wine leads to a healthy heart. Resveratrol inhibits production of endothelin-1, which, when overproduced may cause thickening of the blood vessels and atherosclerosis. In addition, the alcohol (ethanol) component of red wine promotes the elevation of high-density lipoprotein cholesterol, a protective factor against atherosclerotic cardiovascular disease [2].

The ocular effects of wine are noted in Pesachim (92a): "Old wine ... illuminates the eyes." Similarly, in Tanna De'Bei Eliahu Zuta (#13) it is stated, "Wine gives pleasure to old people, makes their hearts happy, refreshes their souls, and illuminates their eyes." Interestingly, medical studies complement Judaic texts. Scientific sources have indicated the health benefits of moderate red wine consumption on retinal disease in the elderly. Age-related macular degeneration (AMD) is the leading cause of blindness in adults 65 years of age and older. Obisesan *et al.* [3] noted a negative correlation between moderate consumption of wine and the development of AMD among older people. AMD and other retinal diseases, such as proliferative vitreoretinopathy, are associated with oxidative stress. It was suggested that resveratrol, the key antioxidant polyphenol in red wine, may be responsible, in part, for the health benefits of moderate wine consumption on retinal disease [4].

> Medical benefits associated with the consumption of specific food items were noted centuries ago by our Talmudic sages

Wine has positive health effects on the brain and on the thinking process, as noted in Eruvin (65a): "Anyone who is settled with a clear mind, after drinking wine, contains the attributes of 70 judges" (i.e., of the *Sanhedrin*). Recent reports associate the daily consumption of a few glasses of red wine (3 to 4 per day, i.e., 250 to 500 ml) with a diminished risk of Alzheimer's disease and of cognitive deficits [5].

In Berachos (51b) it states that old wine is beneficial for the intestines. The bacterium, *Helicobacter pylori*, is associated with gastric ulcers. Red wine exerts antimicrobial effects to *H. pylori* [6] and the daily intake of wine may prevent the development of gastric cancer [7]. Additionally, red wine contains >200 different polyphenols, many of which, due to their antioxidative and anti-inflammatory properties, inhibit the initiation of cancer. For example, Briviba *et al.* [8] noted that red wine polyphenols inhibit

the *in vitro* proliferation of human colon carcinoma cells.

Moderate wine consumption has also been associated with healthy bone development. Abba Shaul said, "I was one who buried the dead and I would look at the bones of the deceased. Through my observations I learned the following. One who would regularly drink undiluted wine, his bones were burned, one who regularly drank overly diluted wine, his bones were dry, and one who would drink properly diluted wine, his bones were well lubricated" (Niddah 24b). And moreover, "Old wine ... makes the posture erect" (Pesachim 92a). Felson *et al.* [9] observed that women who drank at least 7 oz/week of alcohol had higher bone densities at most sites than women with the smallest intake of alcohol (<1 oz/week). Thus, it was concluded that an alcohol intake of at least 7 oz/week was associated with high bone density in postmenopausal women, an effect possibly related to the augmentation of endogenous estrogen levels by alcohol. Similarly, men who were heavy drinkers (≥ 14 oz/week) also had higher bone densities than light drinkers. Ganry *et al.* [10] noted that moderate drinking (e.g., 1-3 glasses of wine/day) was associated with an increase in trochanteric bone mineral density in elderly ambulatory women. In an investigation of whether the intake of different alcoholic beverages was associated with the outcome 2_ years after first-time lumbar disc surgery, Rasmussen [11] observed that the intake of wine correlated with a good prognosis.

The data cited above reflect the positive health effects of wine consumption on specific body functions. The Talmud also presents a blanket statement regarding the health effects of wine, "Old wine is good for one's entire body" (Pesachim 92a). Consumption of red wine has been associated with protection against lung cancer; a 57% lower risk of developing lung cancer was noted in consumers of wine, as compared to those who did not drink red wine at all. Another study noted that men who consumed four or more glasses of red wine/week reduced their risk of prostate cancer by 50% (Peregrin, 2005). In yet another study, the link between wine drinking and total mortality risk (all causes combined) was evaluated. The results of various population studies showed that intake of wine seemed to have a beneficial effect on all causes of mortality. Several studies noted that in subjects consuming wine in moderation, the risk of mortality from all causes was 20-30% lower than in abstainers [12]. As Rav Chanin bar Pappa once said, "Anyone in whose home wine is not poured like water, is not in the category of being blessed" (Eruvin 65a).

Chazal recognized the problems associated with the over-consumption of wine (see Kesuvos 65a; Megillah 12b; Niddah 16b; Eruvin 64a; Yavikra Rabbah 12:1; Bamidbar Rabbah 10:1), as did the National Institute on Alcohol Abuse and Alcoholism. Although separated by many generations, both suggested that wine consumption in moderation can be beneficial, perhaps one or two drinks/day. Both groups also recognized that alcohol affects people in different ways [2]. For example, Rabbi Yehuda bar Ilai suffered from headaches for 7 weeks after consuming the 4 cups of wine on *Pesach* night (Niddah 49b). Many of the positive health effects of red wine cannot be duplicated with the consumption of beers or liquors. Thus, although the alcohol component in the red wine may contribute to the overall health benefits, other constituents in red wine (notably, the polyphenols) play an active role in promoting health

Apples

"Dip the apple in the honey" is a favorite holiday song of children. It is customary that meals on *Rosh HaShanah* include food items symbolic of a healthy, prosperous, and productive new year. Although it may seem obvious that these meals include honey, as it symbolizes sweetness (see Orach Chayim, Hilchos Rosh HaShanah), why specfically an apple? Apples are not even one of the seven agricultural species for which *Eretz Israel* was blessed. A hint of the special status of the apple is noted in a *tosefos* in Berachos (37a). The Talmud discusses the general blessing of *borei nefashos* and the *tosefos* explain the expressions in this blessing as follows. The phrase, "their deficiencies," refers to items that supply an individual's fundamental needs, such as bread and water, and the phrase, "all that He created," refers to the extras, such as apples and similar foods, non- essentials for life but which *HaShem* created for people to enjoy. Of all the possible food choices that could have been mentioned, the *tosefos* focused on the apple!

A connection between apples and *Rosh HaShanah* is implicated when *Ya'akov* came to *Yitzchak* to receive his blessing. *Ya'akov* entered and *Yitzchak* sensed the aroma of *Gan Eden* emanating from *Ya'akov*'s garments and stated, "My son's fragrance is like the fragrance of the field which is blessed by *HaShem*" (Bereshis 27:27). Rav Yehudah, the son of Rav Shmuel bar Shilas, said in the name of Rav that the odor was of a field of apples (Ta'anis 29b). Rashi explains that the fragrance refers to a "field of apples," which in kabbalistic terminology alludes to *Gan Eden*. The garment worn by *Ya'akov* originally belonged to *Adom HaRishon*, thus explaining the connection between the garment's aroma and *Gan Eden*. Rabbi Gold [13] cited a view in the Zohar Chadash that the day on which *Ya'akov* received the blessing from *Yitzchok* was *Rosh HaShanah*.

Apparently, the main and possibly the only citations explicitly mentioning apples in *Ta'nach* are in Shir HaShirim (2:3 and 2:5).

> "Like the fruitful, fragrant apple tree among the barren trees of the forest, so is my Beloved among the "sons" (translated as, false gods). In His shade I delighted and there I sat, and the fruit of His Torah was sweet to my palate" (2:3).

In Perek Shirah (3:27), this *pasuk* (2:3) is designated to the apple and its concluding phrase, "sweet to my palate," is a source for dipping the apple into honey on *Rosh HaShanah*.

The other *pasuk* in Shir HaShirm which mentions apples is: "Sustain me in exile with dainty cakes. Spread fragrant apples about me to comfort my depression – for, bereft of Your Presence" (2:5).

Rabbi Zlotowitz [14] cited Tractate Soferim (16:4) to explain that this *pasuk* allegorically refers to Israel's love-sickness for *HaShem*, while awaiting for their redemption. The "dainty cakes" are a reference to Israel's longing for well-founded *halachos* and "apples" as a reference to Israel's desire for *agaddos*.

Apples have medicinal properties. Rabbi Gold [13] noted a *tosefta* (Bava Metzia 7:2) that grapes and apples were brought to the sick; Y. Levinson [15], a nutritionist, quoted a Zohar (*Acharei Mos*), "Just as the apple heals all, so the Holy One, blessed be He, heals all." Today, apples, fruits, and vegetables in general, are considered to have many health-promoting effects. Cancer and cardiovascular disease, the two leading causes of death in the United States, have been linked to lifestyle choices, in particular, to diet. The majority of epidemiological studies linking diet and cancer have noted a reduced cancer risk in those who consume a diet rich in fruits and vegetables. A diet rich in fruits and vegetables also affords protection against coronary diseases [16].

Much of the protective effects of fruits and vegetables are attributed to their phytochemicals, non-nutrient plant chemicals, such as carotenoids, flavonoids, isoflavonoids, and polyphenolic acids. Phytochemicals serve as antioxidants, to protect against oxidative stress resulting from the metabolism of the foods we ingest. When compared to many of the commonly consumed fruits in the American diet, apples, after cranberries, have the second highest level of antioxidant activity. Furthermore, apples have the highest portion of "free" phenolics, those that are readily available for absorption into the blood stream. It is important to note that the health benefits associated with apple consumption apply to the consumption of the entire fruit, i.e., the peel and the flesh. Various varieties of apples afford different degrees of health effects, with Fuji and Red Delicious apples having the highest antioxidant activity [16].

Health effects specifically linked to consumption of apples include a reduced risk of lung cancer, asthma and chronic obstructive pulmonary disease, cardiovascular disease and, in particular, death from coronary heart disease and type II diabetes [16]. Recently, Liu *et al.* [17] showed that whole apple extracts prevented mammary cancer in a laboratory rat model, in a dose-dependent manner, and at doses comparable to human consumption of one, three, and six apples/day.

In addition to its phytochemicals, apples contain nutritional fiber, both insoluble and soluble fibers. Pectin, a major soluble fiber in apples, has the potential to lower the blood level of cholesterol. Apple peels, which contain insoluble (or, non-digestible) fiber, are noted for their anti-constipation and anticancer effects. A medium apple with its skin contains about 3.5 grams of fiber, an amount higher than that in one medium banana or orange, one peach, large pear (with its skin), and three prunes (Levinson, 1995). The phrase, "an apple a day keeps the doctor away," may, in fact, have some validity.

Dates

Dates, the fruit of the date palm tree (of *lulav* fame), are one of the seven agricultural species for which *Eretz Yisroel* was blessed. In relating the goodness of *Eretz Yisroel*, the Torah (Devorim 8:8) uses the phrase, "a land flowing with milk and honey." Here "honey" refers to date, not bee, honey (Sifre; Yonathan ben Uziel). The Bnei Yisaschar (cited by Gold) notes that the Hebrew term for honey, *d'vash*, has the same *gematria* (numerical equivalent) as the Hebrew phrase, *Av HaRachamin* (Father of mercy), thus evoking Divine mercy and compassion. Moreover, dates (*tamar* in Hebrew) are one of the symbolic food items eaten at the *Rosh HaShanah* meal and their consumption alludes to the destruction (*yitamu*) of our enemies (Tur Orach Chaim 583).

Health benefits related to the consumption of dates as noted by our sages (Kesuvos 10b; Gittin 70a) include the following: dates warm the body, satiate the appetite, loosen the bowels, provide energy, and, although sweet, do not lead to an addiction for rich foods. When eaten after the morning breakfast and the evening dinner (i.e., after a full meal, Rashi), dates nullify a person's worries, intestinal sickness, and, hemorrhoids, apparently related to their laxative effect (Kesuvos 10b). The positive health benefits of date consumption may explain the statement in Berachos (57a), envisioning dates in a dream as a sign for the termination of a person's sins. Rabbi Joseph Ba-Gad, *rosh yeshiva* of B'nai Akiva's Yeshivat Nachalim, apparently is a testament to the health benefits of dates, and he "has been, for about 40 years, eating dates, with boiled water and milk, instead of breakfast and dinner." He consumes only one meal at noon and completes this meal with several dates [18]. With this diet, he is in the "best of health, cheerful, and full of energy" [19].

The above-noted citations from the Talmud stress two main health benefits of date consumption: (a) dates are a source of energy and (b) dates, possibly because of their laxative properties, prevent intestinal disorders. There is much science in support of these health benefits. Dried dates, because of their sugar content, are a high energy food, as well as a good source of potassium and iron. The total carbohydrate content in dried dates ranges from 44 to 88%. Dried dates also have a high content of dietary fiber, ranging from 6.4 to 11.5%, and apparently accounting for their laxative effects [20]. Diets high in dietary fiber have been linked to a reduced risk of "pressure diseases," such as varicose veins, hemorrhoids, and hiatus hernia, and diseases of the colon, diverticular disease, appendicitis, and the occurrence of polyps of the large in-

testines [21]. The high content of both free and total phenols in dried dates provide much antioxidant activity [22], probably accounting for its ameliorative effect on ethanol-induced gastric ulcers in laboratory rats [23] and its antimutagenic properties towards benzo(a)pyrene using tester strains of *Salmonella* [24].

Apparently, we are living in times in which the medical benefits associated with the consumption of specific food items that were noted centuries ago by our Talmudic sages are now gradually being corroborated by research conducted in laboratories throughout the world. ■

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