



## The Menu

- *Strawberry Spinach Salad*
- *Quinoa Salad*
- *Chocolate-covered Dried Strawberries*
- *Strawberry Lemonade*

**Recipes** by Chef Elizabeth Marquez, Interim Director, Culinary Arts, Livingstone College

**Nutrition Notes** by Victoria Fabry, MS, Nutrition and Rural Development, Ghent University, and Clinical Research Specialist, UNC Nutrition Research Institute

## Strawberry Salad

- 4 cups baby spinach
- 2 cups strawberries, quartered
- 1 cup toasted walnuts
- ½ cup chopped or chiffonade basil
- ¼ cup balsamic vinegar
- ¾ cup oil
- 1 T Dijon mustard
- ½ t sugar
- Pinch salt and pepper

### Method

1. Combine spinach, strawberries, walnuts, basil.
2. Put balsamic vinegar, oil, Dijon, sugar, salt and pepper in a blender and blend until combined. Pour some of the dressing over salad and mix.

## Quinoa Salad

- 1 cup quinoa, cook according to directions. Let cool and refrigerate. It will double in volume.
- ½ cup grape tomatoes, halved
- ½ cup red bell pepper, diced
- 2-3 green onions sliced
- ½ cup corn, roasted or grilled and taken off the cob
- ¼ cup cilantro, chopped
- 1 avocado diced
- ¼ cup lime juice
- ¾ cup oil
- 1T Dijon mustard
- ½ t sugar
- Pinch salt and pepper

## Method

1. Combine quinoa, tomatoes, bell pepper, onions, corn, cilantro, and avocado in a bowl. Toss to combine.
2. Combine lime juice, oil, Dijon, sugar salt and pepper in a blender and combine. Pour some of the dressing in the salad and toss to combine. Add more to add more moisture and flavor.

## Dehydrated Strawberries in dark Chocolate

### Method

1. Rinse and dry strawberries
2. Cut ¼ inch thick and put in dehydrator
3. Dehydrate until crispy.
4. Melt chocolate and then stir constantly until it reaches 84-86 degrees. Place strawberries in chocolate and spoon out in clusters onto parchment paper. Let cool and solidify.

## Strawberry Basil Lemonade

- 1 qt strawberries
- 12 lemons squeezed
- 1 cup sugar- use less if you like it tart
- 1 qt water
- 2-3 large sprigs of basil
- Ice

### Method

1. Place sugar, water and basil in a sauce pan and bring it to a boil. Turn off and let sit until cooled. The basil will infuse the sugar mixture.
2. Combine lemon juice and strawberries in a blender and blend until smooth. Strain the mixture to remove the seeds.
3. In a large pitcher, add strawberry mixture, sugar and ice and place in the refrigerator until use.

## Healthy Fats

Fat is not the enemy. Fat is an important component in our daily diet because it offers both culinary and nutritional benefits. From a culinary perspective, fat adds important flavor and textural elements to a recipe. Nutritionally, fat is a critical source of energy, aids absorption of fat-soluble vitamins in the bowel, and plays a key function in regulating the expression of genes.

Several components in today's seasonal salad menu – including walnuts, avocado, extra virgin olive oil, and canola oil – contain the essential fatty acids, omega-3 and omega-6. Ideally, the intake of these two should be 1:1, but the standard American diet contains up to 20 times more omega-6 than omega-3. Why is balance important? Because a very high omega-6/omega-3 ratio has been associated with a host of chronic illnesses, such as cardiovascular disease and cancer. Whereas omega-3 fatty acids (DHA, EPA, ALA) have been shown to be good for your overall health. Research, including the work of Dr. Carol Cheatham's team at the NRI, suggests that EPA and DHA are important for fetal brain development, cognitive function, and cardiovascular health.

- **fatty acids** (n.) building blocks of fat
- **essential fatty acids** (n.) not produce by the body, but essential for bodily functions
- **DHA, EPA, ALA** (n.) the three types of omega-3 fatty acids

Most health institutes agree that the daily recommendation of combined DHA and EPA is 250-500 milligrams per day. Walnuts are a good plant-based source of the omega-3 fatty acid, ALA; however, ALA requires further modifications to EPA or DHA in order to reap its health benefits. Cold-water fish, such as salmon or sardines, is a great source of DHA and EPA. Dr. Saroja Voruganti's group at the NRI is reviewing how genetic mutations can affect metabolism of good fats and cause different outcomes with respect to cardiovascular disease, Type 2 diabetes, and fatty liver.

## How Many B Vitamins?

Did you know that there are eight B vitamins? B-complex vitamins have an important role in energy metabolism and provide an impressive lineup of health benefits. This strawberry spinach recipe stars vitamin B-9, which is naturally found in many foods. Vitamin B-9, more commonly known as folate (or folic acid), provides an important role for tissue growth and cellular function. Although folate deficiency is rare, it has an accelerated demand during pregnancy.

- **B-complex** (n.) referring to all B vitamins
- **metabolism** (n.) to convert food to energy
- **folic acid** (n.) synthetic form of folate found in fortified foods

Women who are pregnant are advised to increase their recommended dietary allowance from 400 micrograms to 1000 micrograms per day. At the NRI, Dr. Natalia Krupenko is investigating protective properties of folate and how they both promote health and prevent disease. Additionally,

Dr. Sergey Krupenko is investigating folate's role in liver function and cancer by studying enzymes that regulate folate metabolism.

## Plant-based Powerhouse

This quinoa salad recipe is perfect for anyone wanting to skip meat while keeping a lot of its nutritional benefits. Quinoa is a powerhouse of the plant world for its nutritional and health benefits. It is a plant-based complete protein source, offers a high fiber content, and is a choline-rich food product. This whole grain contains approximately 8 grams of protein and 5 grams of fiber per cup.

Dietary fiber is a collective term that describes the carbohydrates that cannot be absorbed in the small bowel. Instead, the large bowel. Fiber are absorbed in the product in the large health. Dietary fiber properties, lower risk of coronary heart team at the NRI are nutrient metabolites, disease risk in young

- **complete protein** (*n.*) containing the protein building blocks not produced by the human body
- **ferment** (*n.*) to convert food to energy without oxygen
- **gut microbiome** (*n.*) yeast, bacteria, and viruses living in the bowel form of folate found in fortified foods

they're fermented by microbes in both modifies the rate nutrients small bowel and the fermented bowel contributes to metabolic might have anti-inflammatory blood pressure, and reduce the disease. Dr. Katie Meyer and her studying the gut microbiome, and their relation to cardiovascular adults.

Quinoa is also an excellent plant-based source of a nutrient known as choline. Although the body can make choline in small amounts, the internal supply does not meet the body's demand; therefore, choline has been described as an essential nutrient. Choline has proven important for early brain development and cognitive function. Dr. Steven Zeisel, the NRI's founding director, is credited with discovering the essential role of choline during pregnancy and its function in fetal brain development. Zeisel and colleagues at the NRI have also shown the importance of choline for muscle and liver health and have demonstrated how choline may be vital for optimal memory.

## Eat the Colors of the Rainbow

This quinoa salad packs a punch with its range of vitamins (e.g., A, B, C, E, and K), minerals (e.g., potassium), fat, protein, and fiber. But have you ever heard the phrase "eat the rainbow"? This refers to the fact that fruits and vegetables contain different pigments, or phytonutrients, that give them color. Phytonutrients are lesser-known nutrients that hold synergistic nutritional and culinary value.

For example, tomatoes are an excellent source of a phytonutrient known as lycopene. We can attribute the bright red color of the tomato to lycopene.

In addition, lycopene also impacts the taste of this fruit by enhancing the aroma associated with the flavor of tomatoes. But culinary benefits aside, lycopene is an antioxidant, has anti-inflammatory properties, and may prove to be protective against cardiovascular disease and some types of cancer.

More research is needed to understand its role, but lycopene has been associated with a decreased risk of prostate cancer.

- **phyto** (*prefix*) of a plant
- **essential fatty acids** (*n.*) nutrients produced by plants that keep plants healthy

Berries are a popular fresh option in late spring and early summer, both for their sweet taste and nutritional benefits.

vitamins, minerals, and function as powerful bodies attempt to resist radicals. Exercise, energy sources, such as cigarette naturally expose us to beneficial antioxidants in threat by scavenging free from forming.

- **antioxidant** (n.) inhibits damage caused by free radicals
- **free radicals** (n.) unstable particles that cause damage to the body
- **energy conversion** (n.) to convert food to energy

Packed with an array of phytonutrients, these fruits antioxidants. Every day, our the damage caused by free conversion, and environmental smoking and air pollution, these harmful particles. The berries, however, diminish the radicals or even preventing them

Strawberries offer excellent nutritional benefits, including powerful antioxidants including vitamin C and polyphenols. Often, we identify oranges as the vitamin C champion, but for every 100 grams, both these fruits contain approximately the same quantity of vitamin C. Strawberries are also a smart choice for adults with diabetes. They contain 35 calories and 5.34 grams of sugar for every 100-gram portion.

Strawberries are in season during the month of May in North Carolina but freezing and drying are two preservation methods that allow us to enjoy strawberries year-round. Dried or frozen strawberries are enriched with the same powerful antioxidants as their fresh counterparts.