**Team Ginger – A Powerful Nutritional Herb**

1. **What is ginger? (show an example of ginger to the audience)**
   1. Ginger is a knotted, thick, beige underground stem, called a rhizome. (It is also described as a strange-looking, rounded, brown cactus!) The plant stem sticks up about 12 inches above ground with long, narrow, ribbed, green leaves, and can bloom beautiful white or yellowish-green flowers.
   2. Ginger is closely related to turmeric and cardamom.
   3. Ginger is native to Asia where it has been used as a popular cooking spice and herbal medicine for at least 4,000 years.
   4. It has a long history of use in herbal traditions such as: to help digestion and treat stomach upset, diarrhea, and nausea, loss of appetite, motion sickness, pain, arthritis, and colic. It has also been used to help treat the common cold, flu-like symptoms, and headaches.
   5. Ginger can be consumed fresh, powdered, dried as a spice, in oil form or as juice.
   6. The unique fragrance and flavor of ginger come from its natural oils, the most important of which is gingerol.
   7. Gingerol is the main bioactive compound in ginger, responsible for much of its medicinal properties. It has powerful anti-inflammatory and antioxidant effects.
   8. Ginger is a versatile addition to soups, sauces, marinades, and a number of other dishes, from baked apples to stir-fried vegetables. A cup of tea, of course, is one of its hallmarks, not just for pleasant flavor, but soothing qualities.
2. **History of Ginger** 
   1. Ginger originated in the tropical rainforest in Southern Asia. Although ginger no longer grows wild, it is thought to have originated on the Indian subcontinent. The ginger plants grown in India show the largest amount of genetic variation. The larger the number of genetic variations, the longer the plant is thought to have grown in that region.
   2. Ginger was exported to Europe via India in the first century AD as a result of the lucrative spice trade and was used extensively by the Romans.
   3. Early Roman traders carried ginger from Southeast Asia to Europe, where it became a hit by the Middle Ages. It was very expensive, but even then renowned for healing capabilities. Henry VIII even suggested it as a remedy for the plague. Spanish explorers introduced it to the West Indies, South America, and Mexico, which began exporting it back to Europe in the 16th century. Today, Jamaica, India, Fiji, Indonesia, and Australia are some of the top commercial producers.
3. **Health Benefits**
   1. Ginger contains essential nutrients and vitamins such as vitamin C and B vitamins and has good amount of minerals like potassium, manganese, copper, and magnesium.
   2. The phenolic compounds in ginger are known to help relieve gastrointestinal irritation, stimulate saliva and bile production, and suppress gastric contractions and movement of food and fluids through the GI tract. Therefore, health providers do recommend ginger to prevent or treat nausea and vomiting from motion sickness, pregnancy, and cancer chemotherapy. It is also used to treat mild stomach upset, and to reduce pain of osteoarthritis.
   3. Ginger has been used for centuries to reduce inflammation and treat inflammatory conditions. A study published in Cancer Prevention Research journal found that a ginger root supplement administered to volunteer participants reduced inflammation markers in the colon within a month.
   4. Ginger does contain numerous other anti-inflammatory and antioxidant compounds beneficial to health such as gingerols, beta-carotene, and capsaicin.
   5. Some providers feel the health benefits of honey and ginger in treating respiratory problems are unmatched by any other concoction.
   6. Made into hot tea, ginger releases the compounds gingerol and protease, bringing a rush of comforting warmth that actually increases cardiovascular circulation.
4. **Growing, Selection, Storage, and Preparation**
   1. **Growing**
      1. You can grow ginger indoors in pots all year round. You can harvest the ginger as early as 4 months, but most grown it for about a year.
      2. It is typically a tropical plant, so it must always be in at least 50 degree warmth.
      3. Ginger produces clusters of white and pink flower buds that bloom into yellow or white flowers. Because of its aesthetic appeal and the adaptation of the plant to warm climates, it is often used as landscaping around subtropical homes. It is a perennial reed-like plant with annual leafy stems, about a meter (3 to 4 feet) tall. Traditionally, the rhizome is gathered when the stalk withers; it is immediately scalded, or washed and scraped, to kill it and prevent sprouting.
   2. **Selection/Storage/Prep**
      1. Fresh ginger root is best for both flavor and nutritive qualities, but powdered ginger is an excellent alternative.
      2. When purchasing fresh ginger, make sure the root is firm, smooth and mold-free. Store fresh ginger in a tightly wrapped plastic bag in the refrigerator or freezer.
      3. Young, tender roots can be found in many Asian markets, while larger, tougher ginger roots are sold in the produce section of most supermarkets. Both keep very well frozen for up to six months.
      4. Ginger produces a hot, fragrant kitchen spice. Young ginger rhizomes are juicy and fleshy with a very mild taste. They are often pickled in vinegar or sherry as a snack or cooked as an ingredient in many dishes. They can be steeped in boiling water to make ginger tea, to which honey is often added; sliced orange or lemon fruit may be added. Ginger can be made into candy, or ginger wine, which has been made commercially since 1740.
      5. Mature ginger rhizomes are fibrous and nearly dry. The juice from ginger roots is often used as a seasoning in Indian recipes and is a common ingredient of Chinese, Korean, Japanese, Vietnamese, and many South Asian cuisines for flavoring dishes such as seafood, meat, and vegetarian dishes.
      6. Fresh ginger can be substituted for ground ginger at a ratio of six to one, although the flavors of fresh and dried ginger are somewhat different. Powdered dry ginger root is typically used as a flavoring for recipes such as gingerbread, cookies, crackers and cakes, ginger ale, and ginger beer.
      7. Candied ginger, or crystallized ginger, is the root cooked in sugar until soft, and is a type of confectionery.
      8. Fresh ginger may be peeled before eating. For longer-term storage, the ginger can be placed in a plastic bag and refrigerated or frozen. Don’t peel until ready to use.
   3. **Incorporating into your diet**
      1. Ginger pairs well with many different types of seafood, oranges, melon, pork, pumpkin and apples.
      2. Fresh ginger or ground ginger can be found at most grocery stores.
      3. Add fresh ginger into your next smoothie or juice.
      4. Add fresh or dried ginger to your next stir-fry or homemade salad dressing.
      5. Steep peeled fresh ginger in boiling water to make your own ginger tea.
      6. Use fresh or dried ginger to spice up any fish recipe.
5. **Fun Facts**
   1. Eating raw ginger in foods or in teas generally doesn't cause any known side effects or problems in healthy adults. As a medicine the quantity of ginger used will vary, to treat nausea or gas, adults can chew a one-quarter-ounce piece of fresh, raw ginger.
   2. To treat digestive problems, Greeks would eat ginger wrapped in bread. Eventually ginger was added to the bread dough creating that wonderful treat many around the globe love today: gingerbread!
   3. Ginger ale was invented in 1852 by a doctor in Ireland. It was America's favorite beverage by the 1880s, and thousands of bottlers tried to create a new ginger-based obsession using all kinds of secret ingredients and spices. But cola edged it out by the end of World War II.
   4. Ginger is actually a rhizome, not a root. A rhizome is an underground stem.
   5. The ginger plant is an herb.
   6. You can grow ginger from rhizomes found at grocery stores.
   7. Mature ginger rhizomes, ones most commonly sold in grocery stores, are harvested after 10-12 months.

We hope you enjoyed learning more about the wonderful herb ginger! This is the perfect time of year to add fresh, nutritious ginger to your diet.