I. Imagine your mouth burning like wildfire, your eyes squirting out uncontrollable tears, and your face red and sweating profusely.
   A. Are you sick?
   B. No—you just took a bite of a screaming hot chili pepper.

II. My own desire for spicy meals led me to investigate why I get red in the face and salivate at the mere thought of eating a spicy chili.

III. I have discovered that there is a lot more to chili peppers than I had ever imagined.

IV. Today I would like to share with you what I have learned about the history of chili peppers, why they can be so spicy, what to do when you consume a too-hot pepper, and some of the ways peppers are used other than in food.

Body

I. Chili peppers have a long and fascinating history.
   A. The scientific name of the chili pepper is *Capsicum*, and it is different from black pepper, whose scientific name is *Piper nigrum*.
   B. Black pepper was first cultivated in Asia and was prized in the West as early as the time of the Roman Empire.
   C. Chili peppers originated in South America more than 5,000 years ago and spread to Central America, Mexico, and the Caribbean.
   D. Chili peppers did not become known to the rest of the world until after Columbus came to the Western hemisphere in the 1490s.
      1. As stated in *The Cambridge World History of Food*, within fifty
years after Columbus returned to Spain with sample plants, chili peppers were being grown in coastal areas from Africa to Asia.

2. From there, they spread around the globe.

3. Carolyn Dille and Susan Belsinger, authors of *The Chili Pepper Book*, estimate that nearly 25 percent of the world's adult population uses chili peppers as a regular part of their daily diet.

(Transition: Now that we know a bit about the history of chili peppers, let's see why they can put such a fire in our belly.)

II. The pleasure and pain involved with eating chili peppers comes from a chemical called *capsaicin*.

A. Capsaicin is concentrated in the pepper's veins and seeds.

B. As P. W. Bosland states in the book *Spices, Herbs, and Edible Fungi*, the intensity of a chili pepper's power can be measured in two ways.
   1. The first method was developed by Wilbur L. Scoville in 1912.
      a. This method uses trained testers to measure peppers in Scoville Heat Units.
      b. However, this test is subjective and depends on the individual taster's sensitivity to capsaicin.

C. The most widely used measure today is the High Performance Liquid Chromatography test (HPLC).
   1. This test also gives results in Scoville Heat Units, but the procedure is more objective.
   2. The chemicals responsible for the pepper's heat are scientifically rated according to their pungency.

D. The hottest pepper on record is the orange habanero.
1. It has been rated as high as 300,000 Scoville Heat Units.

2. This pepper is so powerful that even touching it can lead some people to have an allergic reaction.

E. The mildest pepper, rated at zero Scoville Heat Units, is the standard green bell pepper which we see every day in the grocery store.

III. If you come into contact with a hot pepper, you should know how to counteract its effects.

A. One thing that will not help is rinsing your mouth out with water.

   1. As Dave DeWitt explains in *The Chili Pepper Encyclopedia*, capsaicin is not soluble in water.

   2. Even if you drink a gallon of ice water, it will not wash away the burning sensation in your mouth.

B. According to the Chili Pepper Institute at New Mexico State University, the best solution is to consume a dairy product such as milk or yogurt.

   1. They contain a substance that strips capsaicin away from the cells on the interior of the mouth.

   2. This is why some hot foods are served with yogurt sauce.

C. If you burn your skin from contact with a pepper, the Institute recommends cleaning the skin with rubbing alcohol and then soaking it with milk.

D. Above all, there are two points to remember:

   1. Always wear gloves when you cut a hot pepper.

   2. Never rub your eyes while you are working with a hot pepper.

(Transition: Although chili peppers are prized above all for the flavor they add to food, they have other benefits as well.)

IV. Chili peppers are used in personal protection products, as well as for medical purposes.
A. Pepper sprays have become a standard weapon for personal protection by individuals and law-enforcement agencies.

B. Chili peppers are also valued for their medicinal properties.

1. Jack Challem, author of *The Nutrition Reporter*, says there have been more than 1,300 medical studies on capsaicin, the active ingredient in peppers.

2. Moderate doses of chili peppers can aid digestion, reduce hypertension, improve circulation, and help dissolve blood clots.

3. Preliminary research by Professor Kenji Okajima suggests that a combination of chili peppers and soybeans can promote hair growth and might even hold promise as a cure to baldness.

Conclusion

I. In closing, it's difficult to imagine our lives without the spice added by chili peppers.

II. From their origins in South America to their current popularity around the world, peppers have been used not only to flavor our food but also to improve our health and personal safety.

III. While it remains to be seen whether peppers can actually cure baldness, we can be sure this ancient plant will continue to find new uses in our modern age.