Science Literacy Warm

WHY WE LOVE AND HATE SPICY FOODS

technology and so had to find different ways of preserving foods in hot climates. One way is to add spicy ingredients because the spice has an antibacterial property that helps preserve the food.

(8) However, even people without a tradition of eating spicy foods can grow to love it. When eating spicy foods, the pain centers of the brain are triggered but so are the pleasure centers. In response to feelings of pain, your brain produces chemical painkillers called endorphins which relieve pain and cause a sensation of pleasure. People who love spicy

foods are called pyro-gourmaniacs: *pyro* means fire and *gour* from the word *gourmand* which is a person who loves eating.

(9) If you are not a pyro-gourmaniac and you accidentally eat food that is too spicy, then the cure for that is milk, yogurt or ice cream, and the colder the better. The reason why dairy products take the fire away is because they contain a substance called casein which can dissolve capsaicin. When you drink milk, the capsaicin on your tongue is picked up by the casein and washed down and away from your tongue when you swallow. No more fire.

Article Questions

1)	Capsaicin (2)	is the chemical responsible	for the sensation of	spiciness in hot
	food. The level of spiciness	in food is measured using the	Scoville Scale (5)	

- 2) Why does spicy food feel "hot"?
 - Spicy food feels hot because certain chemicals in spicy food trigger VR1 receptors on the tongue which are actually meant to detect heat. This accidental activation causes the brain to mistakenly sense heat in the environment of the tongue.(2)
- 3) The world record holder for the spiciest pepper is the <u>Carolina Reaper (6)</u>.
- 4) Why would adding chilies to foods in hot climates be useful?

Spicy substances act as an antibacterial preservative that is especially useful in warm climates where food can spoil more easily due to the elevated temperatures. (7)

5) Define the term pyro-gourmaniac.

This is someone who loves eating spicy food.(8)

6) Why do people like spicy food?

Besides producing sensations of pain, spicy foods also trigger the production of endorphins which are natural painkillers that can produce sensations of pleasure.(8)

7) If you ate food that was too spicy, what could you do to calm down the spice? Why does this method work?

You could ingest a dairy product like milk, yogurt or ice cream. These all contain casein which is a chemical that binds to capsaicin and makes it detach from VR1 receptors. The capsaicin can then be swallowed along with the dairy product.(9)