The Facts: *Nitrates & Nitrites*

What is Nitrate? Sodium nitrate is a naturally occurring substance in vegetables, water, soil, and even air. It is also found in some salt in its natural state and has been used for thousands of years to cure meats.

What is Nitrite? When nitrate is used to cure meats, it converts to nitrite and the nitrite then reacts with elements in the meat to preserve the meat.

What do Nitrites do to Meat? Nitrite gives cured meat its unique flavor and appearance, and without it we could not have bacon, hot dogs, most sausages, hams and other meat products as we know them. The most important function of nitrite, in cured meat products, is that it preserves the meat by preventing the growth of certain bacteria. Sodium nitrite prevents the growth of Clostridium Botulinum, one of the most toxic substances known to man. Clostridium Botulinum produces Botulism, a paralytic illness that can lead to respiratory failure. Since nitrites have been used in the production of meat products, there have been no known cases of botulism due to contamination of cured meats.

Are Nitrites Safe to Eat? According to the National Academy of Sciences, the American Cancer Society, and the National Research Council, there is no proof of cancer risk from consuming sodium nitrite and therefore is considered safe to eat. Several decades ago, some researchers raised the possibility that nitrites could be linked to cancer in laboratory rats. However, further research revealed that they were wrong. It may surprise you to learn that nitrites are produced in your own body in greater amounts than can be obtained from food and 70-90% of your exposure comes from your own saliva. When we talk about food, vegetables are the primary source of nitrites. Over 90% of the nitrite we get from food comes from vegetables. One serving of arugula, 2 servings of butter lettuce, and 4 servings of celery or beets all have more nitrite than 467 hot dogs. This is because USDA limits the amount of nitrite in hot dogs and bacon to 120 parts per million, and during the curing process the nitrite turns to nitric oxide and leaves only 10 parts per million in the finished product. Here is a list of some common vegetables and their nitrite content.

Cabbage ..... 200 to 352 parts per million

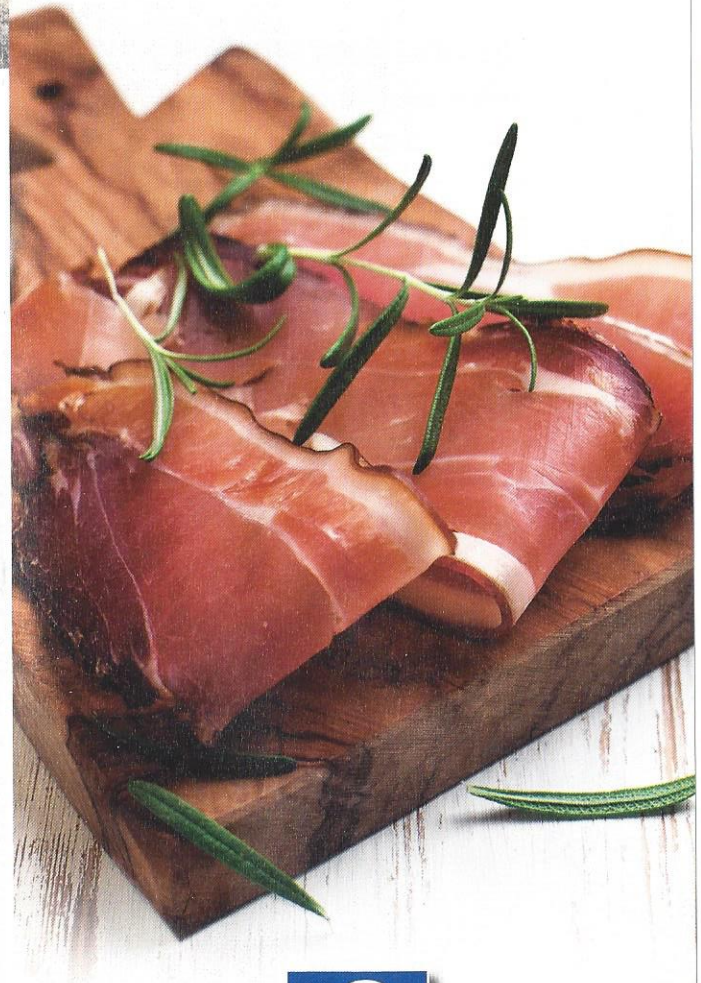
Lettuce ..... 600 to 1700 parts per million

Spinach ..... 500 to 1900 parts per million

Beets ..... 1200 to 1300 parts per million

Carrots ..... 100 to 900 parts per million

Radishes ..... 1500 to 1800 parts per million



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The information contained in this pamphlet was gathered from multiple outside resources and has been compiled to provide factual science, on the above topics, for the consumer. The knowledge provided is a summary and does not contain all possible information about the subject.

Nitrates and Nitrites

are naturally occurring and are found all around us, and naturally produced in us. There is no scientific data to link either one to cancer or any other disease. In fact, they serve to protect us from certain types of bacteria in the foods we eat, especially cured meats.

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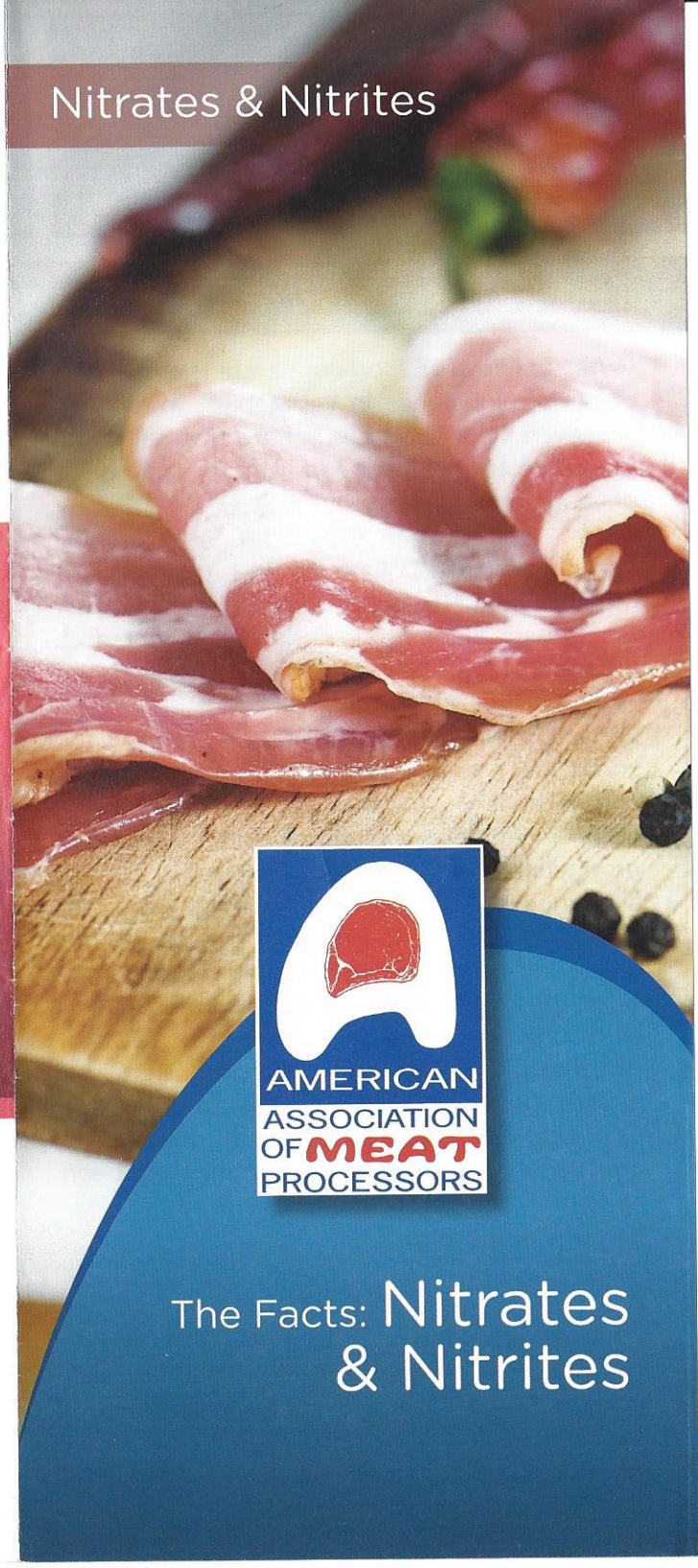

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