

# OPTIMAL HEALTH UNIVERSITY™

Presented by Steven L. Smith, DC

## The “Skinny” on Popcorn!

*Chances are, if you’re planning a fun outing or get-together, popcorn is involved. From movie theaters to ball parks and carnivals to birthday parties and movie rental nights, popcorn is there. But although popcorn has become inexorably linked with fun and entertainment, it’s not necessarily as innocent and wholesome as it seems. Depending on how it’s prepared, popcorn can be very unhealthy — even dangerously so.*

*So before your next movie night or ballgame, read on.*

Popcorn is a party for the taste buds. And, in its pure form, it’s healthful. Free of salt, trans-fatty acids and preservatives, in its natural state, popcorn provides a delicious source of fiber. This whole-grain product is also lower in calories than most other snack foods.

Dr. Smith encourages patients to include plenty of fiber in their diets. Why? Because a high-fiber diet has many positive effects on physical health. “In addition to positive effects in the gastrointestinal tract it [fiber] has an obvious potential to support weight reduction and to improve disturbances of carbohydrate and fat metabolism,” according to a published article by German researchers. Eating a high-fiber diet is also considered to be especially effective in the prevention of type 2 diabetes (*Horm Metab Res* 2007;39:687-93).

However, popcorn is rarely served unadulterated. Rather, what manufacturers and consumers add to it transforms this otherwise healthy treat into an unhealthy nightmare.

Dr. Smith encourages patients to get



the facts about this snack, and all the snacks they enjoy, as part of the **chiropractic lifestyle**, a philosophy that promotes the prevention of disease through regularly scheduled chiropractic care, exercise, stress reduction, proper sleep and optimal nutrition.

### “Pop” History

Popcorn isn’t new to the snack scene. Scholars discovered that humans have enjoyed this treat for millennia. In the late 1940s, for instance, researchers made an incredible discovery in a west-central New Mexican bat cave: 4,000-year-old popcorn! They determined that our ancestors once popped corn by heating sand in a fire and stirring in the kernels.

### Unhealthy Fats Lurking in Your Kernels

Popcorn troubles start with the toppings. And, believe it or not, butter is not the worst offender.

Although real butter is high in fat, this type of fat is actually healthier than the phony “butter flavor” used in many microwave and movie house popcorns.

Specifically, “butter flavor” is often high in trans-fatty acids (TFA), which are associated with a bolstered risk of cardiovascular disease, cancer and a plethora of other ailments. Even if your favorite movie house or popcorn



brand boasts “no trans fat” — beware. The primary fat used to replace trans fat (fully hydrogenated or interesterified fat) is just as destructive to health, if not more so.

And beware — even a little microwave popcorn equals a lot of trans fat. Nutrition experts define a snack of just 100 grams (3.5 ounces) of standard microwave popcorn as a high trans-fat menu item. This is equivalent in trans-fat content to a meal of french fries and chicken nuggets (*Atheroscler Suppl* 2006;7:47-52).

### Microwaving Popcorn? Don Your Gas Mask

Unfortunately, the dangers of microwave popcorn don’t end with the butter.

Commercial microwave popcorn bags are coated with the same material used in many nonstick cookware products. Known as perfluoroalkyl carboxylates (PFCAs), the coating imparts oil and repels water.

The family of perfluorochemicals — of which PFCAs are a member — are widely used in the manufacturing and processing of a vast array of consumer goods, including electrical wiring, clothing, household and automotive products (*Food Addit Contam* 2005;22:1023-31).



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Alarming, researchers found per-fluorochemicals in vapors emitted from pre-packaged microwave popcorn bags (*Environ Sci Technol* 2007;41:1180).

Researchers speculate that inhaling or ingesting these chemicals may up the risk of cancer and other diseases.

### **Additional Inhalation Risk**

Inhaling fumes from chemicals in microwave popcorn's butter flavoring also poses a health risk.

One study in the *American Journal of Respiratory and Critical Care Medicine* confirms numerous earlier reports: Workers in microwave popcorn plants are at high risk of developing bronchial obstruction. The culprit? Continued exposure to chemical components found in butter flavorings (*Am J Respir Crit Care Med* 2007;176:498-504).

Known as "popcorn worker's lung," the effects are compounded over time (*Toxicol Appl Pharmacol* 2006;215:17-22).

For those who make microwave popcorn part of their nightly ritual, continued inhalation of the rich, buttery "just popped" fragrance from the bag can also damage lungs.

Back in September 2007, *USA Today* published a letter written to federal agencies by a pulmonary specialist at Denver's National Jewish Medical and Research Center. The specialist warned that consumers may also be at risk of developing "popcorn worker's lung" after the first case of a consumer developing lung disease from inhaling the fumes of microwave popcorn — several times a day for years — was confirmed by the Center's doctors.

### **Packaging and Portion Size**

Popcorn also poses a threat to your waistline due to the way it's packaged and the way we typically eat it — in a jumbo container while distracted by a movie or ballgame.

One unique study included 158 moviegoers in Philadelphia (57.6 percent male with an average age of 28.7 years). Researchers randomly gave participants a medium (120 gram) or large (240 gram) container of free popcorn that was either fresh or stale (14 days old).

Following the movie, consumption measures were taken, along with measures of perceived taste. "Moviegoers who were given fresh popcorn ate 45.3 percent more popcorn when it was given to them in large containers. This container-size influence is so powerful that even when the popcorn was disliked, people still ate 33.6 percent more popcorn when eating from a large container than from a medium-size container." (*J Nutr Educ Behav* 2005;37:242-5.)

Unless your favorite movie house offers all-natural popcorn free of any additives or flavorings, and allows you to request the amount of salt and real butter used, skip movie popcorn. Besides, munching while watching a movie or television leads to overeating. Instead, save the snack for when you return home, when you can pop up a batch of all-natural kernels.

### **Irritable Bowel Syndrome**

For some, popcorn can also be hard on the digestive system.

Irritable bowel syndrome (IBS) is sparked by hypersensitivity to foods and beverages that stimulate the gastrointestinal tract. These often include popcorn, dairy products, caffeine, alcoholic beverages, spices, diet beverages and nuts (*Inflamm Bowel Dis* 2007;13:91-6).

If you experience any allergic reactions or change in bowel frequency or consistency after consuming popcorn, consult with your doctor.

### **Popping the Old-Fashioned Way Is Best**

Using a hot-air popper to inflate kernels eliminates the need for oil or fat,

and increases the health benefits of popcorn.

Other home-cooked methods, such as popping with a small amount of olive oil in a tightly covered pan on the stovetop, also offer benefits because *you*, not the manufacturer, control the amount and type of butter and salt used.

If you must use butter, use real organic butter, and use it sparingly. Alternatively, get creative! Try tossing popcorn with rosemary, thyme, lavender, honey, organic dark chocolate shavings, chili sauce or curry powder.

### **Nutrition: An Integral Factor in the Chiropractic Approach to Wellness**

This chiropractic office is committed to teaching patients about nutrition. To learn more about the effect of nutrition on health, ask us about additional research-based materials and other programs we have available for patients.



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