

## HARD FACTS ABOUT SOFT DRINKS

*America's Most Loved Thirst Quenchers  
Fall Flat...When It Comes To Your  
Health ...by Frances Sheridan Goulart*

A diet saturated in soft drinks is a cardiovascular fizzle, according to some experts. Research has shown that the sugar, caffeine, and chemical additives contained in America's most popular beverages can trigger weight gain, dental decay, vitamin and mineral deficiency, increased illness, and lead to physical and mental dependency.

"Sugar, caffeine, and dye are a triple punch" says Dr. Ray C. Wunderlich Jr. of St. Petersburg, Florida. "There's hardly any way to recover from it. If you have a cold (soft) drink, you're almost sure to go for another, because you come down so low after being up so high." Indeed, of food components the Center for Science in the Public Interest warns people to avoid, caffeine ranks third on the list, preceded only by sugar and chemical additives. Soft drinks such as colas contain all three of these red-light ingredients.

### ***Sugar and Its Effects***

Perhaps one of the worst effects of soda is that it significantly reduces the efficiency of white blood cells - the body's main defense against infection.

In a study conducted at the University of Alabama in which five subjects each drank 24 ounces of soft drinks, it was observed after 45 minutes that their white blood cells had lost 50% of their ability to combat bacterial infection.

Dr. W.M. Ringsdorf, Jr., senior author of the study, noted that the high blood sugars lead to "a slower, more sluggish

action (by the white blood cells) toward foreign objects."

Sugar in soft drinks works against the body by ridding it of calcium, an important chemical element. Researcher Melvin Benarde says sugar alone helps increase the rate at which calcium is excreted from the body: "Depletion of calcium causes teeth to loosen...makes bones fragile...even weakens the action of the heart." Sugar in soft drinks also contributes to tooth decay.

Writing in the *Journal of Nutrition*. Dr. Clive McCay reports that even short periods of exposure to highly acidic soft drinks can be potentially harmful to teeth. On a pH scale of 0-14 in which 0-7 registers acidity (the lower the number, the greater the acid content), colas were found to be the most acidic with a pH of 2.7, compared to 3.4 for root beer, 3.9 for cream soda, 4.0 for sarsaparilla, 4.3 for cocoa cream, and 4.7 for club soda.

"Certainly the presence of a reaction of 3.5 and below," McCay noted, "even if existing for only a few minutes is a potential source of damage."

According to the Center for Science in the Public Interest, the average American consumes 2 pounds of sugar per week, one-fourth of which is provided by soft drinks alone.

### ***Weight Gain***

Drinking soda is a good way to get fat fast. Consuming one 12-ounce can of soda a day will add 55,000 empty calories - or 16 pounds - in one year. And many of us drink a lot more. Soft drinks also cause the loss of valuable nutrients.

“Drinking soda instead of orange juice or tomato juice,” caution nutritionists from the New York Institute for Child Development, “leeches out vitamins and minerals... When you drink fruit juice, more nutrients are taken in than are used up, but with soda the reverse is true., One of the most common vitamin deficiencies found by doctors today is that of vitamin B complex.” Evidence of this condition - in which the body borrows from its reserves to burn sugar - is a feeling of lassitude and loss of energy. Thiamin, or B1, is used by the body to metabolize sugar, which does not contain B1 and therefore depletes the body of this essential vitamin.

### *Caffeine*

Caffeine, another prevalent ingredient in soft drinks, removes important elements from your diet and can cause other problems as well.

According to authors Gary and Steven Null, “most heavy caffeine imbibers run the risk of slow-acting permanent damage from years of drinking their favorite soft drinks...the kidneys are constantly irritated from caffeine’s diuretic (urine producing) effect, which can lead to infection and subsequent kidney failure...the stomach lining is also irritated, and gastric ulcers are a common complaint of people who drink too much of this stimulant.”

A high level of caffeine in the blood increases the amount of cholesterol circulating in the arteries, raises blood pressure, and plays a part in inducing hyperglycemia - abnormally high concentrations of sugar in the blood.

The FDA has been accepting comments on proposals to remove caffeine from its list of generally recognized safe substances, to ban the use of caffeine as

an additive in foods and drinks, to restrict the current use of caffeine in products to which it is added, and to make caffeine an optional rather than mandatory ingredient in soft drinks.

## **WHAT YOU DON'T KNOW CAN HURT YOU!**

What are some of the common additives in soft drinks? Just a few include:

- EDTA**, a preservative that extends the “shelf-life” of soda. In excessive amounts it can cause calcium imbalance, vitamin deficiency, and kidney damage.
- Propyl gallate**, another preservative, often used in conjunction with BHT and BHA, two other dangerous oxidants. High doses can adversely affect growth and kidney functions.
- Sulfur dioxide & sulfites**, preservatives found in soft drinks, wine, and many processed foods. Side effects of sulfite consumption include gastric distress, increased salivation, headaches, and diarrhea.
- Citric acid**, produced commercially by fermenting crude sugar and used in carbonated drinks to adjust the acid-alkaline balance.
- Phosphoric acid**, while important for bone and teeth development, in excessive amounts phosphorus can create a zinc deficiency.