

## FDA Approves Irradiation of Fresh Produce *Practice Viewed as Valuable Tool to Combat Food-Borne Illnesses*

By Richard Hansen

The FDA has given food producers and processors permission to now irradiate iceberg lettuce and spinach to protect against bacteria such as E. Coli and Salmonella.

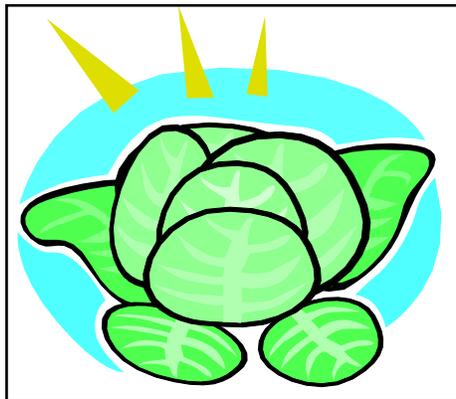
When food is irradiated, low level radiation is employed to destroy the molecular bonds in the DNA of bacteria and other pathogens.

Although irradiation has been shown to kill many forms of bacteria, it does not sterilize food, and cannot protect against the norovirus which has been implicated in recent food scares.

The main impetus behind the recent FDA decision was the 2006 E. Coli outbreak that claimed three lives and sickened 200. The outbreak was later traced back to contaminated spinach.

In the wake of that incident, the Grocery Manufacturers Association petitioned the FDA to approve the irradiation of fresh produce, beginning with leafy greens.

It is believed romaine lettuce may be the next food to receive approval for irradiation.



The FDA asserts that using small amounts of radiation to kill dangerous bacteria will not render food radioactive.

Experts also claim that it does not significantly alter the appearance, taste or nutritional composition of food.

Irradiation may even extend the shelf life of some perishable foods.

One study found that irradiated strawberries were kept "fresh" for over three weeks, as opposed to untreated strawberries which, on average, spoiled within 3 to 5 days.

Despite its potential sci-fi connotations, irradiation is far from new. Scientists have been researching irradiation as a way to combat food-borne illnesses for almost 40 years.

In the early 1970's, American astronauts were the first humans to eat irradiated food while traveling in space. Prior to this most recent approval, the FDA sanctioned the irradiation of red meat in 1997.

Many companies have been hesitant to adopt the practice, however, due to consumer safety concerns.

Opponents of irradiation argue it represents a superficial measure that only diverts attention away from the structural reforms that need to be made to the whole food supply chain.

The FDA has encouraged people not to view irradiation as a food safety "cure-all," but as "one more tool in the tool box" to make food safer and protect the public health.



Irradiated food must be labelled with the "Radura" logo (left) and the statement "treated with radiation" or "treated by irradiation."

## Flavanols: Breakthrough Brain Boosting News for "Choco"-holics



It may sound too good to be true, but scientists might have found evidence that chocolate could actually be good for you.

Research, supported by Mars, Inc. now shows that flavanols, a naturally

occurring antioxidant found in cocoa, can significantly boost blood flow to the brain.

The discovery has prompted some to suggest that cocoa flavanols could one day be used to treat vascular impairments and slow cognitive decline.

As a person ages, this decline occurs because blood flow to the brain decreases. It can produce structural damage and increase the risk of dementia.

Flavanols could slow this natural process of deterioration by stimulating blood vessels in the brain. As part of the new study, a group of adults, all

over the age of fifty, were given a flavanol-rich drink provided by Mars.

Scientists carefully monitored the effect it had on blood vessels in the subjects' brains. Most participants experienced a 10% increase in blood flow within two weeks.

Unfortunately, while cocoa beans are high in flavanols, you will not derive much benefit by simply eating an extra

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# Dr. Carl's Corner



The Nasca Lines in Peru may serve as a giant geographic map that illustrates the location of fresh water in one of the most arid regions of the world.

Great care was taken in understanding how geological faults deliver water from the nearby mountains.

Well locations are carefully designed and have withstood centuries of change so that Peruvians can enjoy the benefits of water carried by these underground streams.

Equally amazing is the water system found on the island of Madeira. Rain falls in the mountains and percolates through the soil until it reaches bedrock. Underground streams carry this naturally purified water to island's springs.

Over a period of 400 years, an amazing system has been constructed that delivers this precious water to the farms and vineyards miles away. Without this water, this cropland would be an arid wasteland.

In China, centuries-old underground canals carry water from the mountains to farms and communities that would otherwise never have survived in the dry seasons.

Near Phoenix, Arizona, there lies the archaeological remains of the

## Flavanols - Cont.

chocolate bar a day.

The typical chemical process used to refine cocoa and make chocolate drastically reduces its flavanol content. Mars, Inc. developed its patented CocoaPro® process to solve this problem. The company claims the new process allows them to refine cocoa without destroying its natural flavanols.

world's largest irrigation system. How it operated is a mystery, just as is the disappearance of the Anasazi people who lived in the southwestern United States.

Cultures that did not plan for their water needs have disappeared in short order.

Climate change turned the Sahara and much of the Mediterranean region into a desert and made cities in the region unviable.

Today, huge water projects have come on line or will come on line in the near future.

Some of these projects will submerge landmarks of cultures that lived more harmoniously with nature until recent times.

These projects also bring diseases like malaria and water-borne diseases to regions where these conditions were a rarity or heretofore unknown.

Food-borne diseases are also linked to changes in a region's watershed. For example, livestock can contaminate the groundwater that supplies nearby truck farms.

This process has led to recent outbreaks of food-borne diseases in the United States.

In Mexico, the World Bank has provided funding for an open irrigation

system supplying small truck farms that produce valuable crops like tomatoes and peppers.

This development holds hope of lifting people in the region out of poverty.

The recent outbreak of food-borne illness in Minnesota was traced back to farms in Mexico using irrigation water that was contaminated with Salmonella.

Large urban areas and heavy industries, like steel mills, are located nearby. One wonders what else might be found in the water.

Hydroponic systems were developed by the U.S. military in Asia following World War II. American soldiers became ill when they ate local food.

Local fields were fertilized with "night soil," which is human fecal waste. This led to outbreaks of dysentery.

In India, the "untouchables" collected "night soil" from their villages.

The development of pure drinking water and waste water management systems in America represent probably the greatest health breakthrough of the last century. Without them, children run the risk of a lifetime of illness if they don't die from food-borne and water-borne diseases before age five.

## Vitamin D Deficiency Found in Breast-Fed Infants

Doctors have now found that breast-fed infants are increasingly likely to suffer from a significant vitamin D deficiency.

This discovery appears to be in line with a disturbing new trend that suggests vitamin D deficiency in our society may be more widespread than ever imagined.

It has long been known that human milk is low in vitamin D, and if a breast-feeding mother has a deficiency herself, the infant is unlikely to receive enough of this critical nutrient.

Since 2003, the American Academy of Pediatrics has recommended that parents give their breast-fed infants supplemental vitamin D drops.

The guidelines suggest 200 international units a day, but in light of recent findings, the academy may soon increase the recommended dosage.

In the most extreme cases, young children and infants with a vitamin D deficiency can develop rickets, a detrimental condition associated with weak and brittle bones.

Rickets, a common health problem during the 19th century, was nearly eradicated by the vitamin fortification of milk. This new resurgence in vitamin D deficiency may be an unfortunate side-effect of our modern lifestyle.

Humans evolved the ability to synthesize the vitamin D we need from sunlight.

In the past, when people spent the majority of their time living and working outdoors, they had little trouble getting the vitamin D they needed.

As people spend more time indoors though, it is becoming harder for them to meet their body's requirements naturally without supplementation.

# Laurie's Corner



For those of you who are and have been gardeners, you can most likely identify with what happened on July 29th. We had been anxiously watching this huge, succulent reddish-orange tomato ripening on the vine. We thought we'd wait just one more day before picking it, and, I probably don't have to tell you what happened. We weren't the only ones with our eyes on the prize – yes, it was plucked that very night by some unknown creature (human or not). Oh, well, in last month's newsletter I mentioned we needed to put up a fence – and, now, if we don't, we might not be able to harvest anything!

Speaking of harvesting, we got another big surprise. We were walking home from work one evening. As we were approaching our house, I noticed a beautiful, bright bubblegum pink ball sitting in the middle of our backyard. I thought it might be one of those cute tennis balls, but as I got a little closer I realized, to my horror, it was a potato! And, guess where it had come from. You're right, our garden. We couldn't imagine how that could have happened. A few days later we discovered that SQUIRRELS like to dig in our garden, and they've harvested a few more since our discovery. This seemed like another good reason to get that fence up; however, the guys informed me that NO FENCE could keep out a mischievous squirrel!

Since we planted so many lovely herbs, I've started making "herb

bouquets" – especially using the ones that are flowering. Not only are they beautiful, they have a wonderful aroma. They are particularly helpful in the kitchen so fresh herbs can be continually at my fingertips while preparing meals. I even brought one into the office so I can add herbs to all the salads I make for our lunches. I've also been adding some of the herbs to flower bouquets – I particularly like adding mint and lavender for a "scent-sory" touch.

Here is a quick and delicious salad to make for lunch or dinner. It is especially good if you can just walk out to your garden and pick the lettuce, tomatoes, cucumbers, green peppers and herbs!

## Mediterranean Chicken Salad

Lettuce (This salad can also be served without lettuce, making it ideal for a picnic.)

2 Cucumbers, washed, peeled  
2 large Tomatoes, washed, or 1 pint  
Cherry Tomatoes, washed  
1 ½ cups Cooked Chicken, diced  
½ cup Kalamata Olives, whole or sliced  
lengthwise in halves or quarters  
1 cup Feta Cheese, crumbled  
Fresh Basil and Oregano, a few sprigs  
each, washed and chopped  
Black Pepper, freshly ground  
Italian, Greek or Balsamic Dressing,  
home-made or bottled

If you have extra time and energy, here are some optional additions:

1 small Red Onion, sliced thinly  
1 small Green Pepper, washed and  
diced  
6 Pepperoncini, sliced, plus some  
juice  
Pine Nuts or Sliced Almonds, toasted  
Parmesan, freshly grated

1. If you will be using lettuce, wash and pat or "spin dry" it, place on paper towels, roll up, put in plastic bag and refrigerate.

2. Cut the cucumbers horizontally in half, scoop out the seeds with a spoon, cut each half in half and dice. Put in a large bowl.

3 Cut the tops off the tomatoes, dice and put in the large bowl.

4. Put diced chicken in the bowl. It's always nice to grill extra chicken so

you have it handy. Another way to get cooked chicken is to go to the deli counter and request thickly sliced (about ¼ - ½") chicken or turkey and cut in cubes.

5. Add sliced olives, chopped herbs, crumbled Feta, and pepper.

6. If adding onion, green pepper and/or pepperoncini, now is the time.

7. Pour on the dressing and mix all together.

8. If using lettuce, put it on individual salad plates or one big platter and top with the dressed salad.

9. And, if adding the pine nuts or Parmesan, top with either or both.

## In The News...



## California Study Shows It Pays to Not Smoke

An economic analysis of California's Tobacco Control Program has some good financial news for the state.

Researchers found that the program, aside from benefitting people's health, has also saved the state upwards of \$86 billion in personal health care costs between 1989 and 2004. That represents a "50-fold increase" on the \$1.8 billion spent on the program over that period.

They also calculated that the campaign was associated with 3.6 billion fewer packs of cigarettes being sold in California.

The researchers defined total personal health care spending as:

- Hospital costs
- Doctor's fees
- Prescription drug charges
- Home health care costs
- Nursing home care
- Health equipment
- Vision products
- Other personal health care

Figures were also derived by examining the program in California and comparing it to 38 other states that did not have an anti-smoking campaign before 2000.

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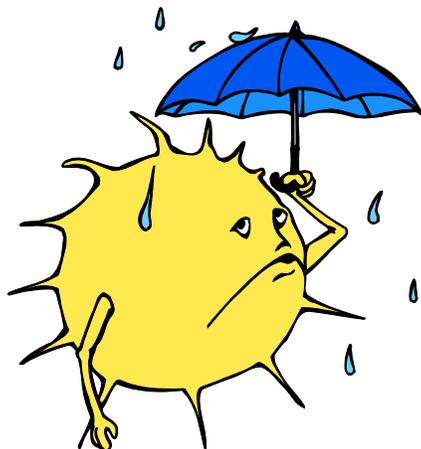
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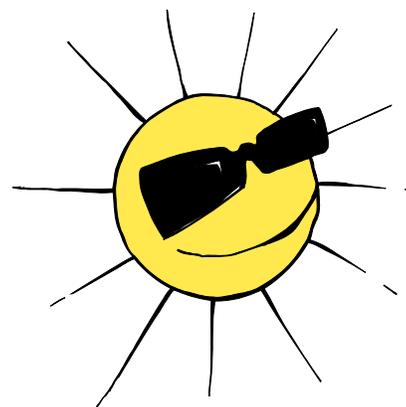
## Overcoming Depression



Overcoming depression is a journey that requires the right “roadmaps” and “tools” leading to recovery.

Many people are forced to grapple with depression for years because they are unaware of the simple, practical and scientifically sensible solutions that exist to help them.

If you are ready to start on the path to resilience and recovery, send an email to [info@mend.net](mailto:info@mend.net) with “roadmap” in the Subject line for information on “Roadmaps for Resilience.”



## Roadmaps for Resilience

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