

Washing your hands¹ ...



Becker's ASC Review² reveals nine widely held myths about washing your hands. Here are a few of them:

Hot water is better than cold water for effective handwashing

Scientists have found that various temperatures had "no effect on transient or resident bacterial reduction." Not only does hot water not show any benefit, but it might increase the "irritant capacity" of some soaps, causing dermatitis.

Hand sanitizers kill germs more effectively than soap

Using alcohol-based hand-hygiene products is in general not more effective than washing your hands with plain soap and water.

Frequent handwashing or use of hand sanitizers promotes healthy skin

In fact, contact dermatitis can develop from frequent and repeated use of hand hygiene products, exposure to chemicals and glove use.

Soap with triclosan is an effective antimicrobial for handwashing

A recent study compared an antibacterial soap containing triclosan with a non-antibacterial soap. The results showed that the antibacterial soap did not provide any additional benefit. In addition, concerns have been raised about the use of triclosan because of the potential development of bacterial resistance.

¹ Article taken from <http://www.mercola.com/>

² Sources: [Becker's ASC Review January 2011](#) and [Common Dreams January 25, 2011](#).

*Did you know that antibacterial soaps are tied to a public health crisis? It's true. The fervent use of antibacterial soaps and other antimicrobial products significantly contribute to a growing scourge: *antibiotic-resistant bacteria*.*

Antibiotic-resistant disease is a problem that few pay attention to, despite the fact that it's been a known, growing phenomenon for several decades. It's now become one of the most serious public health threats of the 21st Century. Antibiotic-resistant infections now claim more lives each year than the "modern plague" of AIDS, and [cost the American health care system some \\$20 billion a year](#).

According to a 2007 study published in the *Journal of the American Medical Association*, more than 18,600 people died from invasive MRSA infections in the United States in 2005. And that's just ONE antibiotic-resistant bug. The [list of resistant microbes](#) is steadily growing. What will it take before it's taken seriously?

A Shift in Thinking is Required to Quell Growing Health Threat

It may seem like there's nothing you, as an individual, can do about the rise in antibiotic-resistant disease, but that's not true. You're either part of the solution or part of the problem when it comes to the rampant over-use of antibiotic drugs and antibacterial products.

Drug companies keep pushing the use of antibiotics; doctors keep prescribing these drugs for viral infections they can't treat; patients keep asking for them for every ill; parents and schools keep insisting on using antibacterial cleansers and wipes; and the food industry keeps injecting them into their livestock, which eventually ends up on your dinner plate ... But you can be part of the solution in each and every one of these scenarios.

You can turn a deaf ear and a blind eye to drug advertisements; you can question your doctor's prescription; you can resist asking for an antibiotic unless absolutely necessary and appropriate; you can avoid buying conventional farm-raised beef; and you can avoid using antibacterial products in your own home.

The last recommendation in particular is one of the easiest, and it will save you money to boot. Proper hygiene does NOT require you to use harsh antibacterial agents. On the contrary, they can cause far more harm than good, both in the long- and short-term.

Handwashing—Your First Line of Defense Against Infectious Disease

Washing your hands is your number one protection against the acquisition and spread of infectious disease. But you do not need to use antimicrobial soap to get the job done. [Studies have shown](#) that people who use antibacterial soaps and cleansers develop a cough, runny nose, sore throat, fever, vomiting, diarrhea and other symptoms just as often as people who use regular soaps.

Part of the reason for this is because most of these symptoms are actually caused by *viruses*, which antibacterial soaps can't kill.

But even for symptoms like vomiting and diarrhea, which may be caused by bacteria, those who used regular soaps still had no greater risk than those who used antibacterial products. So, the rational conclusion is antibacterial soaps are *completely unnecessary* for the purpose of washing away bacteria.

A [2007 systematic review published in the journal Clinical Infectious Diseases](#) confirmed that antibacterial soap containing *triclosan* *did not provide any additional benefit* compared with a non-antibacterial soap.

The authors concluded:

"The lack of an additional health benefit associated with the use of triclosan-containing consumer soaps over regular soap, coupled with laboratory data demonstrating a potential risk of selecting for drug resistance, warrants further evaluation by governmental regulators regarding antibacterial product claims and advertising."

There have been no changes made to the claims products are allowed to make, or how they're allowed to advertise these products, but why wait for federal regulation that may or may not come? It's been repeatedly shown that washing your hands with plain soap and water can kill germs that cause:

- The common cold
- Influenza
- Pneumonia
- Hepatitis A
- Acute gastroenteritis
- Stomach infections such as salmonella, campylobacter and norovirus
- Other contagious illnesses and surgical wound complications, including MRSA

Proper Hand Washing Technique

However, it's important to use proper hand washing *technique*. To make sure you're actually removing the germs when you wash your hands, follow these guidelines:

- Use warm water
- Use a mild soap



- ☑ Work up a good lather, all the way up to your wrists, for at least 20 seconds
- ☑ Make sure you cover all surfaces, including the backs of your hands, wrists, between your fingers, and around and below your fingernails
- ☑ Rinse thoroughly under running water
- ☑ Dry your hands with a clean towel or let them air dry
- ☑ In public places, use a paper towel to open the door as a protection from germs that the handles may harbor

Also remember that your *skin* is actually your primary defense against bacteria, not the soap, so resist the urge to become obsessive about washing your hands. Over-washing can easily reduce the protective oils in your skin (especially in the winter and dry desert environments) and cause your skin to crack—offering easy entry for bacteria and viruses into your body.

Instead, simply wash your hands when they look dirty, and prior to, or after, performing certain tasks that could spread infection, such as in these instances:

- Before and after preparing food, especially when handling raw meat and poultry
- Before eating
- Before and after treating wounds or taking/giving medicine
- Before touching a sick or injured person
- Before inserting contact lenses
- After using the toilet or changing a diaper
- After touching an animal, its toys, leashes, or waste
- After blowing your nose or coughing/sneezing into your hands
- After handling garbage or potentially contaminated waste

Antibacterial Products Pose Several Health Risks

Once you understand that good-old-fashioned [soap and water are just as effective as modern antibacterials](#), the second issue becomes that of side effects. Traditional soap will not harm your health, other than perhaps dry your skin if used too frequently, whereas antibacterial products like triclosan comes with an array of potentially dangerous side effects.

In a [recent press release](#), [Dr. Sarah Janssen of the Natural Resources Defense Council](#) is quoted as saying:

*"It's about time FDA has finally stated its concerns about antibacterial chemicals like triclosan. The public deserves to know that these so-called antibacterial products are **no more effective in preventing infections than regular soap and water** and may, in fact, be dangerous to their health in the long run."*

This truth may be tough to swallow for some people because of highly successful advertising, but it's true nonetheless. Please understand that the idea that "clean" equals sterile is not based in reality. A massive, highly profitable market has been created based on the premise that germs must be eradicated and that they're hard to kill.

As a result, many, particularly the younger generations, have been brainwashed into believing that regular soap isn't good enough; you need that "magic ingredient" that will ensure your safety and cleanliness. Unfortunately, you're just paying extra for the privilege of having been hoodwinked by slick advertising.

You're also paying more while putting your health at risk in a number of ways, including:

1. Contributing to the creation of hardier, more resistant bacterial strains. The antimicrobial triclosan, for example, is known to promote the growth of resistant bacteria. Even the [American Medical Association \(AMA\) does not recommend antibacterial soaps](#) for this very reason.
2. Adding to your body's toxic burden.
3. Triclosan, the active ingredient in most antibacterial soap, not only kills bacteria, it also has [been shown to kill human cells](#), and has been [shown to act as an endocrine disrupter](#).
4. In addition, these products kill both bad AND good bacteria, which is another explanation for how they contribute to the development of antibiotic-resistant bacteria and potentially also to [allergic diseases like asthma and hay fever](#).
5. A child raised in an environment devoid of dirt and germs, and who is given antibiotics that kill off all of the good and bad bacteria in his gut, is not able to build up natural resistance to disease, and becomes vulnerable to illnesses later in life. This theory, known as [the hygiene hypothesis](#), is likely one reason why many [allergies and immune-system diseases](#) have doubled, tripled or even quadrupled in the last few decades.

Antibacterial Soap Mixed with Chlorinated Water is a Dangerous Mix

As if that wasn't enough, when triclosan mixes with the chlorine in your tap water, *chloroform* is formed, which the Environmental Protection Agency (EPA) has classified as a probable human carcinogen. I warned about [this compounding danger](#) over five years ago.

In tests that closely mirror typical dishwashing habits and conditions, researchers have found that triclosan reacts with free chlorine to generate more than 50 parts per billion (ppb) of chloroform in your dishwater. And, when combined with other [disinfection byproducts \(DBPs\)](#), the additional chloroform could easily drive the concentration of total trihalomethanes above the EPA's maximum allowable amount. As I've discussed before, trihalomethanes are some of the most dangerous chemical byproducts there are. The maximum annual average of THMs in your local water supply cannot exceed 80 ppb (parts-per-billion), but there really is no "safe" level of these chemicals.

Trihalomethanes (THMs) are Cancer Group B carcinogens, meaning they've been shown to cause cancer in laboratory animals. Disinfection byproducts (DPBs) have also been linked to reproductive problems in both animals and humans.

Furthermore, once these antimicrobial chemicals flow down your drain, they contaminate the environment and become part of the food chain. Researchers have determined that about 75 percent of another popular antimicrobial, triclocarban (TCC), resists water treatments meant to break it down and ends up in surface water and in municipal sludge used as fertilizer. TCC is also known to cause cancer and reproductive problems.

So, the release of antimicrobials into the environment is yet another way that these products contribute to the increase in resistance of pathogens to clinical antibiotics.

Why Use Something that Has NO Clear Health Benefits and Plenty of Health Hazards?

The research clearly shows that you do not need antimicrobial soap to effectively protect yourself from germs. All you need is plain soap and warm water. Ditto for your dishes and your laundry.

So please, avoid using antibacterial soaps and other products containing these hazardous ingredients. They're just harming you, the environment, and adding to a significant public health problem. They also cost more.



Instead, just use a gentle, chemical-free soap. Local health food stores typically carry a variety of natural soaps that will do the trick without harsh chemicals.