

## Research on Silver Use in Skin Care

**Why Silver Kills Germs and Heals Wounds.** People have known for centuries that silver kills germs, but only recently have scientists discovered how the white metal does its work. One question that has eluded scientists is why silver is harmful to bacteria but doesn't hurt humans. (more)

**FDA Approves Silver-Based Bandages for Over-The-Counter Sales.** The U.S. Food and Drug Administration has cleared over-the-counter sales of silver-based antimicrobial bandages by Westaim Biomedical Corp., aimed at consumer use. The bandages will be a lower-dose version of the company's Acticoat burn and wound dressings. (more)  
Antibacterial silver products finally begin to emerge after years of FDA oppression (more)

**Silver Oxide Moves From Swimming Pools to Fabrics - Kills Bacteria and Keeps Them From Growing on Clothing.** Polyvalent silver oxide, now widely used to provide swimming pools with an odorless, non-corrosive alternative to chlorine, is also shown to be effective in keeping textiles germ free. (more)

**Silver Ions from 'Oxides' Kill Bacteria Faster, More Effectively in Pools: Clinical Trials Also Show Promise as Medicine.** With silver ions gradually replacing chlorine as the anti-bacterial agent of choice, researchers have taken this technology one step further. They are using more powerful silver ions from silver oxide to help kill life-threatening bacteria and other dangerous pathogens faster and more effectively. (more)

**Centers for Disease Control Warning on Swimming Pools: Swim at Your Own Risk - Silver-Based Sanitation Systems the Answer.** (Washington, D.C. - June 10, 2003) Inadequate cleaning and safeguarding of swimming pools may be exposing millions of Americans to harmful bacteria that cause diarrhea and other illnesses, according to a report released last week by the U.S. Government's Centers for Disease Control and Prevention (CDC), in Atlanta, Georgia. (more)

**Two New Facial Scrubs Contain Silver.** Minaloa Skin Care Products of Irvine, California, has introduced two new facial cleansing products that contain colloidal silver to help kill bacteria. Colloidal silver consists of silver ions dissolved in purified water. (more)

**DuPont and HealthShield Team Up for Antibacterial Brushes.** Dupont Filaments and HealthShield Technologies, Boston Mass., will begin marketing silver-based antibacterial tooth brushes, hair brushes and other cosmetic applications. (more)

**Oligodynamic Effect of Silver:** The oligodynamic effect (greek oligos = few, dynamis = force) was discovered in 1893 by the Swiss KW Ngeli as a toxic effect of metal-ions on living cells, algae, moulds, spores, fungi, virus, prokaryotic and eukaryotic microorganisms, even in relatively low concentrations. Silver is capable of rendering stored drinking water potable for a long period of time (several months). Water tanks on ships and airplanes are often "silvered". Silver or silver compounds are used externally in skin treatment. (more)

**The Science of Oligon.** Materials, and in particular metals, that are antimicrobial in minute amounts are called oligodynamic. One of the most potent of these is silver, and the antimicrobial form is silver ions. The microbicidal effects involve both altering the function of the cell membrane and linking to the cell's DNA, disrupting cell reproduction. The bactericidal action of silver ions is effective against a broad spectrum of bacteria, including the common strains which cause infection and the more virulent antibiotic-resistant strains. Silver ions have also been shown to be fungicidal. Moreover, when silver ions are used in the minute concentrations required to kill or stem the growth of bacteria and fungi, they have not shown any detrimental effect on normal mammalian cells. (more)