

Antibiotics and Immune Suppression

One irony of antibiotic use is that while they are intended to "bolster" the immune response by killing bacteria, they may in some cases have a suppressive effect on immunity. Evidence for this comes from two basic sources: studies of the effect of antibiotics on the activity of white blood cells, and the outcome of infections treated with antibiotics.

In an article published in *The American Journal of Medicine* in 1982, Drs. William Hauser and Jack Remington of Stanford University School of Medicine reported on the ability of some antibiotics to alter the immune response. Tetracycline was shown to inhibit the ability of white cells to engulf and destroy bacteria (phagocytosis) and to delay the ability of white cells to move to the site of infection. Sulfonamides inhibited the microbicidal activity of white cells. Trimethoprim-sulfamethoxazole inhibited antibody production. Similar action of numerous antibiotics was reported (26).

Antibiotics have also been shown to increase the likelihood of repeat infections. In one report, children with strep throat who were given antibiotics recovered from the initial infection in short order. However, they experienced a rate of recurrent infections two to eight times higher than those not receiving antibiotics. This was especially true if antibiotics were given in the first two days of illness. Similar findings have been reported with antibiotics used to treat ear infections. A study published in 1974 showed that children with acute earaches who received antibiotics within the first few days of illness experienced up to 2.9 percent recurrent infections than those in whom antibiotic use was delayed (7 or more days) or avoided. (28). This study was met with some skepticism and seemed to have little impact on medical practice. A 1991 article published in the *Journal of the American Medical Association* has renewed the debate raised by the 1974 study. It showed that children with chronic earaches who received antibiotics experienced two to six times more recurrent middle ear effusion than those receiving placebo. (29).

Such evidence seems to suggest that antibiotics may in some cases limit the body's ability to recognize and destroy invading bacteria. It appears that when antibiotic treatment is delayed, children are able to develop natural immunity, thereby insulating them from future episodes. Early antibiotic therapy may inhibit the initial immune response, which may increase the likelihood of repeat infections.

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with natural chiropractic care.**