

# Suburban Pediatrics

9101 N. Greenwood Avenue  
Niles, IL 60714  
(847) 296-8127

## Protecting your child from infections

By Barton D. Schmitt, MD

Public health measures have had a major impact on preventing the spread of infectious diseases. Proper sewage disposal and safe water supplies have largely eliminated epidemics of illnesses such as typhoid fever and cholera. Immunizations have controlled many other infectious diseases such as smallpox and polio.

Precautions within the home can further limit the spread of infectious disease, particularly gastrointestinal illnesses. Unfortunately, controlling the spread of colds, coughs, and sore throats within a family unit is usually impractical, although there are some measures that may help.

### HOW INFECTIOUS DISEASES SPREAD

Nose, mouth, and eye secretions are the most common sources of respiratory infections. These secretions are usually spread by contaminated hands or occasionally by kissing. Toddlers are especially prone to spreading these infections because of their habits of touching and mouthing everything.

Droplets that spread through the air by coughing or sneezing are a less common means of transmitting respiratory infections. Droplets can travel up to six feet.

Fecal contamination of hands or other objects accounts for the human-to-human spread of most diarrhea, as well as infectious hepatitis. Unlike urine, which is usually sterile, bowel movements are composed of up to 50% bacteria.

The discharge from sores such as chickenpox and

fever blisters can be contagious. Most red rashes without a discharge do not spread by skin contact, however.

Contaminated food or water accounted for many epidemics in earlier times. Even today some foods commonly contain bacteria that cause diarrhea. Around 50% of raw turkey and chicken contains campylobacter or salmonella organisms, for example. *Escherichia coli*, a cause of bloody diarrhea, can be found in up to 20% of ground beef. (By contrast, despite media concern, less than 1% of raw eggs are contaminated with salmonella organisms.)

Contaminated utensils such as bottles and dishes can occasionally spread respiratory or intestinal infections. Contaminated objects such as combs, brushes, and hats can spread lice, ringworm of the scalp, or impetigo.

### PREVENTIVE MEASURES

The following precautions can help reduce the spread of disease within your household:

**Encourage hand washing.** Hand washing helps to prevent the spread of gastrointestinal infections more effectively than all other approaches combined. Recent studies have found that hand washing is also the mainstay in preventing the spread of respiratory disease. Rinsing your hands vigorously with plain water probably works as well as using soap and water.

Hand washing is especially important after using the toilet, changing diapers, blowing or wiping the nose during a cold, and coming in contact with aquarium water or reptiles such as pet turtles and iguanas, which can spread salmonella. Always supervise young children when they use the toilet or wash their hands. Choose a day-care center where the staff practices

DR. SCHMITT is Director of General Consultative Services, The Children's Hospital of Denver, and Professor of Pediatrics, University of Colorado School of Medicine. He is a member of the Editorial Board of *Contemporary Pediatrics*.

## GUIDE FOR PARENTS/PREVENTING INFECTIONS

good hand washing after changing diapers and supervises hand washing by young children.

**Clean contaminated areas with disinfectants.** These products kill most bacteria, including staphylococcus organisms. Disinfecting the diaper-changing area, cribs, strollers, play equipment, and food service items limits the spread of intestinal diseases at home and in day-care centers. Also wipe off objects that have been touched by children with colds. Cold viruses can remain infectious for up to six hours on surfaces that are contaminated with nasal secretions.

**Discourage your child from touching the mouth and nose.** This precaution helps limit the spread of respiratory infections. Touching the eyes after touching the nose is a common cause of eye infections. Unfortunately, controlling this behavior in toddlers is impossible.

**Don't smoke around your child.** Exposure to tobacco smoke increases the frequency and severity of colds, coughs, croup, ear infections, and asthma.

**Discourage your child from kissing pets on the mouth.** Pets (especially puppies) can transmit worms, organisms that cause bloody diarrhea, and other things. Pets are for petting.

**Cook all meat thoroughly, especially poultry and ground beef.** Undercooked poultry is a common cause of diarrhea. Undercooked ground beef can spread a serious diarrheal infection caused by *E coli* bacteria. Thaw frozen meat in the refrigerator rather than at room temperature to prevent bacteria from multiplying. After preparing meat for cooking, carefully wash your hands and anything that has come in contact with raw meat (such as the knife, cutting board, or countertop) before preparing other foods. Never serve chicken or beef that is still pink inside (a common problem with outdoor grilling). Don't place cooked meat on the same platter from which uncooked meat was removed.

**Use a plastic cutting board.** Germs can't be completely removed from wooden cutting boards.

**Avoid eating raw eggs.** Don't undercook eggs. The yoke must be completely cooked, so avoid eggs with runny yolks, such as soft-boiled eggs. If you make your own eggnog or ice cream, use pasteurized egg whites (readily available in supermarkets). Remember, however, that the risk of contaminated eggs is very small, less than 1%.

**Choose a small day-care home over a day-care center if possible.** Children who attend day care in private homes have a lower rate of infectious disease than children who attend larger day-care facilities. Children who are cared for in their own homes by babysitters have the lowest rate of infection. Since colds are more likely to cause complications during the first year of life, try to arrange for home-based day care if your child is in this age group.

**Contact our office if your child is exposed to meningitis or hepatitis.** Antibiotics can prevent some types of bacterial meningitis in exposed children under 4 years of age. An injection of gamma globulin helps to prevent hepatitis in children who have had intimate contact (longer than four hours) with someone with this disease.

**Keep your child's immunizations up-to-date.** This is one of the most important precautions you can take to protect your child against serious infections. The recently introduced *Haemophilus influenzae* type b (Hib) vaccine, for example, has eliminated over 90% of cases of severe meningitis caused by *H influenzae* bacteria.

**Don't attempt to isolate your child.** The value of isolation within a family unit is questionable. By the time a child shows symptoms, he or she has already shared the germs with the family. Also, isolation at home is virtually impossible to enforce.

---

Adapted from Schmitt BD: *Your Child's Health*, ed 2. New York, Bantam Books, Inc., 1991.

This parent guide on preventing infections may be photocopied and distributed to parents without permission of the publisher.