

Prevention of Infections

Public health methods have had the greatest impact in preventing the spread of infectious diseases. Proper sewage disposal and safe water supplies have largely eliminated epidemics such as typhoid fever and cholera. Immunizations and vaccinations constitute the other aspect of modern medicine that has controlled infectious diseases like smallpox and polio.

Precautions within the home can limit the spread of gastrointestinal illnesses. Unfortunately, controlling the spread of colds, coughs, and sore throats within a family unit is impractical.

How Infectious Diseases are 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 or mouthing everything.
- Droplet spread from coughing or sneezing is a less common means of transmission of respiratory infections. Droplets can travel up to 6 feet.
- Fecal contamination of hands or other objects accounts for the spread of most diarrhea, as well as infectious hepatitis. Unlike urine, which is usually sterile, bowel movements are composed of up to 50 percent bacteria.
- The discharge from sores such as chickenpox and fever blisters can be contagious. However, most red rashes without a discharge are not contagious by skin contact.
- Contaminated food or water accounted for many epidemics in earlier times. Even today some foods frequently contain bacteria that cause diarrhea. (For example, over 50 percent of raw turkey or chicken contains *Campylobacter* or *Salmonella*. By contrast, only 1 percent of raw eggs are contaminated with *Salmonella*.)
- Contaminated utensils such as bottles and dishes can occasionally be a source of respiratory or intestinal infections.
- Contaminated objects such as combs, brushes, and hats can lead to the spread of scabies, ringworm, or impetigo.

How to Reduce or Prevent the Spread of Infectious Diseases

The following preventive actions can help reduce the spread of disease within your household.

- 1. Encourage hand washing.** Hand washing helps to prevent the spread of gastrointestinal infections more than all other approaches combined. Rinsing your hands vigorously with plain water is probably as effective as using soap and water. Hand washing is especially important after using the toilet, changing diapers, and contact with turtles or aquarium water. Choose a day care center where the staff practices good hand washing after changing diapers. Young children must be supervised in their use of toilets and sinks. Recent studies have found that hand washing is also the mainstay in preventing the spread of respiratory disease. Wash the hands after blowing or touching the nose.
- 2. Discourage habits of touching the mouth and nose.** Again, this advice is helpful in preventing the spread of respiratory infections to others. Also, touching the eyes after touching the nose is a common cause of eye infections.

- 3. Don't smoke around your children.** Passive smoking increases the frequency and severity of colds, coughs, ear infections, sinus infections, croup, wheezing, and asthma.
- 4. Discourage your child from kissing pets.** Pets (especially puppies) can transmit bloody diarrhea, worms, and other things. Pets are for petting.
- 5. Cook all poultry thoroughly.** Undercooked poultry is a common cause of diarrhea. If the poultry is frozen, thaw it in the refrigerator rather than at room temperature to prevent multiplication of the bacteria. After preparation, carefully wash your hands and any object that comes in contact with raw poultry (such as the knife and cutting board) before using them with other foods. Never serve chicken that is still pink inside (a common problem with outdoor grilling). Don't place the cooked meat on the same platter that the uncooked meat was removed from.
- 6. Use a plastic cutting board.** Germs can't be completely removed from wooden cutting boards.
- 7. Avoid eating raw or undercooked eggs.** If you make your own eggnog or ice cream, use pasteurized eggs.
- 8. Choose a small day care home over a large day care center.** Children in day care provided in private homes have a lower rate of infectious disease. Children who are cared for in their own homes by baby sitters have the lowest rate of infection. Infants are more likely to have complications from colds. If your child is less than 12 months old, try to arrange for day care in a home.
- 9. Clean contaminated areas with disinfectants.** These products kill most bacteria, including Staph. Disinfecting the diaper-changing area, cribs and strollers, play equipment, and food service items limits intestinal diseases at home and in day care centers.
- 10. Contact your child's physician 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 4 hours) with someone with this disease.
- 11. Keep your child's immunization up-to-date.**
- 12. Don't attempt to isolate your child.** Isolation is mentioned last because its value 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 impossible to enforce.