FEATURE by Barbara Langham

# Health and safety: Learning that lasts a lifetime

s. Henderson leads a small group of 3-yearolds to the sink to demonstrate how to wash their hands properly. They have been learning handwashing since they were toddlers, but she believes it's necessary to reinforce the skill.

"Do we have to?" asks Leslie, who is hungry for snack. "My hands are clean," asserts Joey, showing his palms.

Smiling, Ms. Henderson says, "We've just come from the playground where we've touched a lot of things. We want to get all the dirt and germs off."

She points to the poster next to the sink and describes each step shown in photographs. Once the lather forms on her hands, she beings to sing:

Twinkle, Twinkle, Little Star, How I wonder what you are. Up above the world so high Like a diamond in the sky. Twinkle, Twinkle, Little Star. How I wonder what you are.

Each child follows her directions. At Jeremy's turn, he giggles as he sings. Ms. Henderson lip syncs and nods at every line.

"It smells good, too," says Brenda, drying her hands with a paper towel.

s we have been reminded during the COVID-19 **1** pandemic, handwashing is critical to preventing the spread of disease. When done properly, it's a better choice than using an alcohol-based hand sanitizer (Malant 2020)—and more appropriate in early care and education classrooms. (Note that anti-bacterial solutions, including soaps, work only against bacterial infections, and not viruses and other pathogens.)

If children resist, you can try making handwashing satisfying and even fun. Offer the activities below and others that you create.

- Post a daily calendar that children check each time they wash their hands.
- Encourage children to draw or paint a handwashing superhero (art center).
- Create a puppet show in which the superhero defeats the germ monster by washing hands (book center).
- Have children apply lotion to their hands and then sprinkle them with glitter. Explain that the glitter is like germs we pick up throughout the day (water play center).
- Fill a latex glove with water, secure the opening, and freeze. Use a washable marker to dot the glove to represent germs. Take out the frozen glove and demonstrate how washing removes the germs (water play center).
- Sing and pantomime "This Is the Way We Wash



Our Hands" to the tune of "Here We Go Round the Mulberry Bush" (music center).

If children learn this basic practice in childhood and learn the science behind it as they go through grade school, there's a good chance it will become a habit that will last throughout their lives.

Children in your care can develop other practices that prevent disease and lead to robust health. Among the preventable diseases are diabetes (how well your body processes insulin and controls blood sugar) and high blood pressure (how well your heart pumps blood). Both diseases can lead to dire consequences such as heart attack and stroke as well as kidney disease. Both diseases can begin in childhood and are likely to persist into adulthood.

Heading the list of preventable disease practices are a healthy diet and regular exercise. Ideally these are mainstays in your early childhood program.

## Serve healthy foods

Today 1 in every 5 children ages 2 to 19 in the United States is obese (Hassink 2018). Despite three decades of education efforts, obesity continues to increase nationally. According to the Centers for Disease Control and Prevention (CDC), children who are obese in childhood are likely to be obese as adults (2016).

Serve healthy snacks and meals and talk with children about the nutrients in food while eating family style with them. Model eating a variety of foods and serving reasonable portions. Offer learning activities,



including fingerplays, games, and songs.

Plan menus so that at least half children's food intake consists of fruits and vegetables, with whole grains and protein making up the rest. The healthiest protein foods include seafood, chicken (especially white meat), beans, eggs, nuts, and soy.

It's especially important to avoid sweetened sodas and teas, sports drinks, and fruit-flavored drinks. Such drinks are high in calories and have no nutrients, leave children feeling hungry, and damage children's teeth (Davis 2007). Offer fresh fruit pieces rather than juice, or plain water instead.

A few guidelines:

- Bake foods rather than frying.
- Emphasize dark leafy greens (spinach, collards, kale) over starchy ones (potatoes).
- If fresh vegetables are unavailable, choose frozen ones, which provide the same valuable nutrients.
- Choose whole wheat bread and flour.
- Choose low-fat types of milk and cheese.
- Avoid processed foods like sweetened breakfast cereals, snack bars, frozen pizza, and meats like frankfurters, sausage, and bacon.
- When buying groceries, read the labels. Avoid foods containing high-fructose corn syrup and added sugar. Don't assume that all those labeled organic are the healthiest.
- Prefer butter over margarine.
- Reduce sugary and salty foods. Sugar includes any ingredient ending in *-ose*, such as *fructose* and *lactose*. Eating a healthy diet is important at school; for many children school meals provide the bulk of daily nutritional requirements. You can make a significant impact on children's diets by providing two meals and two snacks every weekday. You also have an opportunity to show parents how to introduce new foods to the meals they serve—using brown rice instead of white rice, for example.

# Provide regular exercise

Physical activity offers many benefits besides preventing disease. It gives children a way to strengthen muscles, enhance balance and coordination, improve mood and well-being, sleep better, and build self-confidence.

Set aside time every day for physical activity. According to the CDC, children 3 to 5 years old should be active throughout the day. School-age children need 60 minutes or more of physical activity

daily (CDC 2020). In Texas, child care licensing rules reinforce this recommendation requiring daily outdoor time both in the morning and the afternoon.

Don't be limited to traditional playground equipment, such as swings, slides, tricycles, and wagons. Consider adding a basketball hoop, 4 to 6 feet high, and a small ball that bounces. Add a soccer ball and show children how to kick it against a wall and trap it with one foot.

Make sure the play yard and all equipment are safe. Locate moving equipment out of traffic flow, and maintain fall zones and cushioning materials. Repair or replace broken parts, wrap sharp edges, and keep the yard free of litter, poisonous plants, insects, and other hazards.

Choose activities that are developmentally appropriate. Infants and toddlers can roll balls and chase them, and school-agers can play team soft ball games, for example. Offer group games such as Red Rover and Duck, Duck Goose. Consider parachute play with an old bedsheet, or have children pair up for Hopscotch. Set up an obstacle course with activities such as crawling, jumping over old tires, and walking a balance beam.

Once a year or so, have an Olympics event, with events such as the long jump, three-legged race, Frisbee<sup>TM</sup> toss, tennis with balloon and flyswatters, and relay races (handing off an egg on a spoon or water in a plastic cup).

When the weather is bad, set up physical activity indoors. It may include dancing, badminton, bouncing a hula hoop around the waist, playing broom hockey or ping pong, and tossing bean bags at a target.

Explore and try out new activities that children might enjoy. Some may enjoy marching to music, while others will appreciate a brisk nature walk. Accept children's physical abilities and encourage a sense of play.

Most important, limit screen time, such as TV, videos, computers, and video games. The American Academy of Pediatrics (2019) recommends spending no more than one hour a day with age appropriate, deliberately planned, and curriculum guided programming only for children 2 to 5 years old.

In all physical activity, make sure children stay hydrated. Have water available throughout the outdoor time, and offer water before they get thirsty.

Be active yourself. By doing physical activities with children, you give them an excellent role

model. Help parents find ways to do physical activities at home, and involve them as partners in physical activity wherever possible.

For more information, see https://childcarequarterly.com/pdf/fall16\_babyfat.pdf and https://childcarequarterly.com/pdf/summer16\_special-diets.pdf.

A healthy diet and regular exercise will have a lasting impact on children, but there are many other measures that can prevent immediate or long-term injury and encourage a healthy lifestyle.

#### **Prevent environmental illness**

**Air quality.** While the COVID-19 pandemic, with mandates for face masks and social distancing, has increased our sensitivity to the air we breathe, children with asthma and allergies have long dealt with air quality problems. Indoor air pollutants may include molds in bathrooms and air ducts, dust, animal dander, and emissions from garbage. Outdoor air pollutants, which can seep through wall cracks, may include radon (a naturally occurring chemical that is a leading cause of lung cancer, second only to tobacco smoke), pesticides, natural gas leaks, and allergens such as plant pollens.

In addition to heeding child care licensing regulations, include these standard prevention measures to reduce the impact of air pollution:

- Wash bedding every week in water that is at least 130 degrees F. Machine dry.
- Replace HVAC filters regularly. Have HVAC systems inspected before each heating and cooling season.
- Vacuum carpets and floor mats every day after children have left the facility, using bags that will capture particles 3 microns in size and smaller.
- Be alert to any signs of moisture on ceilings, walls, and floors.
- Investigate odors. The need to use air fresheners may indicate a problem.

For more information, see https://childcarequarterly.com/pdf/summer06\_business.pdf.

**Pest control.** Rats, mice, mosquitoes, ticks, and fleas carry diseases such as salmonella, murine typhus, West Nile virus, encephalitis, Lyme disease, and the Zika virus. Roach droppings can set off asthma attacks. Certain biting insets can cause pain and threat of death in people allergic to the venom.

Prevention begins with reducing what pests are looking for—food, water, and shelter.

- Cut tall grass and weeds next to your building.
  Keep shrubs and wood mulch at least a foot away from exterior walls.
- Maintain a healthy lawn to discourage ants.
- Don't let water accumulate in rain gutters or ground holes. Empty all play containers, wading pools, and water tables after each use.
- Keep trash cans and dumpsters at least 50 feet away from building entrances.

Before using pesticides, try mechanical measures, such as flypaper and traps placed where children cannot reach them. If you must use pesticides, ask your exterminator to use green products, which contain ingredients that have minimal negative impact on the environment. Hire only a licensed pesticide company that uses an Integrated Pest Management (IPM) approach. Schedule the application only when no people are present, and notify parents in advance.

For more information, see www.childcarequarterly.com/pdf/sum05\_sanitation.pdf.

### Prevent accidents and injury

**Water play.** Water activities are a good way for children to cool off in hot weather and get physically active. But drowning is the leading cause of accidental death among infants, toddlers, and young children. Most people mistakenly believe a drowning child will struggle in the water and make a lot of noise. The opposite is often true: The child may silently slip under water.

If you use a wading pool (2 feet of water or less), provide extra adult supervision heeding staff to child ratio rules. If your program has a swimming pool, install a 6-foot fence around it, and lock the gate when not in use. In either case, review and follow all child care licensing rules related to water play.

Offer swimming lessons at your program or encourage parents to get them for children. Even if a child can swim, never leave the child unattended. Teach children safety rules, such as no pushing or dunking and no running on wet surfaces by the pool. For more safety tips, see Colin's Hope at www. colinshope.org/water-safety-resources/water-safety-tips/.

Playing under a water sprinkler can be fun, as long as it's not on a concrete driveway, sidewalk, or patio, and you supervise children closely.

For more information, see www.childcarequarterly.com/pdf/spring14\_licensing.pdf.

**Sunburn.** Serious sunburn in childhood can increase the risk for skin cancer. Children need year-round protection, even when the weather is cool and the sky is cloudy. The American Academy of Pediatrics warns against using sunscreen on infants younger than 6 months old; their best defense is to avoid sun exposure. Outdoor time for them can be in the shade in early morning and late afternoon. Remember to secure parent permission before using sunscreen on children.

Some tips for sun safety, especially in the summer:

- Avoid mid-day sun—10 a.m. to 2 p.m.—when ultraviolet (UV) rays are strongest.
- Have children wear hats and loosely fitting, longsleeves shirts.
- Use a sunscreen with 15 SPF (sun protection factor) or higher or UVA/UVB protection. Apply it 30 minutes before going outdoors. Reapply periodically (as recommended on the container) if children are playing in water.

For more information, see http://childcarequarter-ly.com/pdf/summer18\_licensing.pdf.

**Poisoning.** Most substance poisoning occurs when caregivers get distracted. Among the most dangerous substances with the potential for poisoning, according to the American Academy of Pediatrics, are medicines, cleaning products, and car products such as antifreeze and gasoline.

To prevent ingestion, follow these guidelines:

Store dangerous products in locked cabinets inaccessible to children.



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- Never refer to medicine as candy.
- Remove all plants that are poisonous.
- Secure devices that contain button-cell batteries (such as musical children's books and hearing aids) out of reach. Swallowed batteries can burn a child's esophagus.
- Install electric or battery-operated carbon monoxide detection devices—at least one for every floor of the building. Test the system annually.

For more information, see https://childcarequarterly.com/pdf/winter18\_safety.pdf.

**Vehicle injury.** To help prevent vehicle accidents on your premises, designate a one-way entry at one end of your driveway and an exit at the other end for parents to use when dropping off and picking up children. If you have only street parking, ensure that children enter and exit along a curb. When parents drop off a child, have an adult guide the child into the building. As a child gets into a car to leave and waits to be buckled up, establish a rule such as "Wait with one hand on the car," which may be better than saying "Stay close" and "Come close."

If possible, use a protected parking area rather than the street. If children must cross a street, make sure they do so with an adult.

Motor vehicle accidents are a leading cause of death among children. All 50 states require by law that children riding in a car be secured in a child safety restraint system. The National Highway Traffic Safety Administration recommends car safety seats based on a child's age and size. See www. nhtsa.gov/equipment/car-seats-and-booster-seats#age-size-rec.

Many hospitals, health departments, public safety groups, law enforcement agencies and fire departments can check for proper installation and refer parents to agencies where they can get free seats. Parents can also find an agency to help at www. nhtsa.gov/equipment/car-seats-and-booster-seats#install-inspection.

If your program transports children—to or from the facility, on field trips, or between the child care program and a school—maintain proper child-to-staff ratios. Properly employ safety seat systems, and carry all specific equipment and documents required by child care licensing rules. Have a foolproof system for accounting for all children when exiting a vehicle, including checking a written list of names, counting heads, and installing a vehicle alert system.

One of the most heartbreaking and senseless safety issues is hot car deaths. The number of children dying from heat stroke in cars, either because they were left or became trapped, has reached a record number—53 in 2018, the most in more than 20 years (NTSA n.d.).

Never leave a child alone in a van or car. A child's body temperature rises 3 to 5 times as fast as an adult's (AAP 2019). Check, and double check that all children have left the vehicle safely.

**Crib safety.** Sudden Unexpected Infant Death (SUDS) and Sudden Infant Death Syndrome (SIDS) account for about 3,000 deaths a year in children younger than 12 months. The numbers have declined radically since he American Academy of Pediatrics issued its Back to Sleep recommendations in 1992 and the subsequent initiation of its Safe to Sleep® education campaign. Basic guidelines include the following:

- Always place baby to sleep, for naps and at night, on the back.
- Use a firm and flat sleep surface in a safety-approved crib with no other bedding or soft items.
   No soft toys, no crib bumpers, no loose bedding.

The academy's recommendations came as a result of studies that indicated tummy sleeping and soft bedding could suffocate infants unable to raise or move their heads. According to the guidelines, SIDS remains a threat until 12 months. The risk lessens once the baby is strong enough to roll from back to front and from front to back alone (Frost 2020).

For more information, see www.cdc.gov/sids/index.htm.

### Be proactive about health

Early childhood programs can put children on the road to lifelong good health. Teaching handwashing and other sanitation practices can prevent infectious disease. Serving healthy foods and providing regular exercise can instill good life-long health habits.

Always remember to balance proactive practices with reactive measures such CPR and first aid training. Taken together, these practices allow children to grow and develop to their full potential.

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#### Resources

The U.S. Department of Agriculture offers information sheets, videos, and songs on health and safety, including nutrition and physical activity, for teachers at www.choosemyplate.gov/.

Learn more about the USDA's Child and Adult Care Food Program at https://www.fns.usda.gov/cacfp.

For information about reducing salt (sodium) consumption, see the Summer 2014 issue of *Texas Child Care Quarterly* at https://childcarequarterly.com/pdf/summer14\_salt.pdf.

For more information about the caregiver's role in reducing childhood obesity, see the Summer 2003 issue of *Texas Child Care Quarterly* at http://child-carequarterly.com/pdf/summer03\_obesity.pdf.