

IT'S NOT SAFER INDOORS:

Naming and Dealing with Risks in Nature

By LORI PARADIS BRANT

“Unlike television, nature does not steal time, it amplifies it. Nature offers healing...reinterprets fantasies...inspires creativity. In nature, a child finds freedom, fantasy, and privacy...”

—Richard Louv, *Last Child in the Woods: Saving Our Children from Nature Deficit Disorder*

Summer is the perfect season for children to get outdoors and explore nature’s treasures and secrets. Whether on a hiking trail, in a city park, or in the backyard, children and their parents can become adventurers. We can experience the fresh air and—unfortunately—the itch of mosquito bites or a tick that has attached itself to our skin. It is a season of enjoyment and risk. Risk is a part of our daily lives. Each day we take risks through our decisions, whether business or personal choices. We are constantly identifying risks, weighing our options, and practicing risk reduction through our actions.

Should we allow our children outside to explore and experience the many lessons of nature, knowing that this exposes them to ticks that might carry Lyme disease, as well as other dangers? Is it better we keep them indoors, where we may increase their risk of childhood obesity and loss of appropriate creative stimulation? How do we find the facts and identify the appropriate amount of risk? How do we do what is best for our children?

Naming the risks

One of the concerns people express most frequently is exposure to **Lyme disease-carrying ticks**. According to the Connecticut Department of Public Health, our state has the highest rate of Lyme disease in the nation. Lyme disease is transmitted to humans by the black-legged or deer tick, one

of several species of ticks found in Connecticut. Ticks, which prefer grassy, shrubby areas, are arachnids – related to spiders. They grasp onto a blade of grass or other low vegetation with several of their eight legs and hold out their remaining legs in the air, attempting to grasp the fur or clothing of a host as it walks by. While a tick usually grabs onto a person’s leg, it may take several hours before it finds itself a place to attach on another part of the body. According to the Connecticut Agricultural Experiment Station in New Haven, the longer an infected tick is embedded, the higher the likelihood of Lyme disease being transmitted: after 24 hours, there is a 0 percent risk; after 48 hours, 12 percent; after 72 hours, 79 percent; and after 96 hours, 94 percent. Infected ticks in their nymph stage, akin to their teenage years, are most associated with Lyme disease as they are only about the size of a pinhead and not as easily detected as the adult.

An evening outdoors in the summer doesn’t seem complete without some pesky **mosquitoes** buzzing in the ears. As we exhale, mosquitoes find us by the carbon dioxide we release. Female mosquitoes need to bite because they require the protein found in blood in order to produce their eggs. They aren’t only annoying for the itchy welts their bites leave. A more serious hazard in this region is that a small number of them can carry West Nile Virus. Infected mosquitoes transmit this viral infection when they bite. In areas where infected mosquitoes have been found, fewer than one out of 500 mosquitoes will be infected, according to the Connecticut Department of Public Health. As of September 2006, the Connecticut Mosquito Management Program announced that nine people in Connecticut had been infected with West Nile Virus that season. Those are very low odds of infection when compared with the risk of being diagnosed with cancer. The American Cancer Society projects that in



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2007 close to 20,000 new cases of cancer will be diagnosed in Connecticut. An extremely rare, but no less serious disease transmitted mostly by bird-biting mosquitoes, is eastern equine encephalitis. To date, there have not been any recorded cases in humans in Connecticut. The Ag Station coordinates

mosquito trapping and testing, and to date, all trapped mosquitoes have tested negatively this year.

Running barefoot through the grass is almost synonymous with summer. The cool blades of grass seem to gently tickle the undersides of bare feet. What risks can there be in this carefree delight? If the grass has been treated with **lawn chemicals** to kill insects or weeds, plenty of them. Environment and Human Health, Inc., a nonprofit organization of doctors and experts in public health and policies conducts research to identify environmental harms affecting the human population and promotes public education about the connection between environmental and human health. The organization warns that lawn chemicals are toxic and can cause a plethora of ailments, including cancer, birth and reproductive defects, neurological disorders, and more. Children and pets playing in the lawn that has been treated with chemicals are at risk. Many of the chemicals found in lawn care products also can contaminate ground and drinking water sources.

While this information can easily frighten us, knowing it can help us ascertain the risks and examine ways to reduce them. We then can take action so that we may enjoy time outdoors without surrendering to fear.

Kids and Nature

Reducing Risks

Check for Ticks Daily. This is a crucial and simple step to reduce the risk of Lyme disease. The Connecticut Agricultural Experiment Station reports that Lyme disease is most likely transmitted after an infected tick has been attached for more than 36 hours, and most likely to occur after it has been attached and engorged in the skin for two to three days. An infected, but not engorged (flat in shape) tick does not transmit the bacterium that causes Lyme until it ingests the blood of the host. This means that a daily tick check is an excellent and widely recommended method to preventing and lessening the risk of Lyme disease. The Ag Station expresses that this is the most effective means of prevention. By making this part of a daily routine, such as part of the nightly routine of brushing the teeth, washing the face, and checking for ticks, we are more likely to remember to check every day, even if we've only been outside for a little while. By adding a tick check to our habits, we are accepting the fact that Lyme disease is a risk but that prevention, not fear, can reduce our risk of contracting it.

Ward off Mosquitoes. The U.S. Centers for Disease Control recommends using products with DEET to repel these flying insects, but to use it sparingly as it can absorb through the skin. This chemical works by confusing the carbon dioxide receptors in a mosquito so it can't find the source of the CO².

In a 2003 report released by the American Academy of Pediatrics, the maximum concentration of DEET recommended for use on children is 30 percent. The report recommends using it sparingly, applying it no more than once a day, washing treated skin after going indoors, and buying the product with the lowest concentration that will be effective for the amount of time you spend outside.

A 10-percent DEET concentration provides approximately two hours of protection from mosquitoes. The American Academy of Pediatrics cautions against using products that combine DEET with sunscreen, because sunscreen tends to be reapplied over a day and DEET should not be applied that often.

The Connecticut DEP recommends reducing mosquito bites by making sure door and window screens are fitted properly and in good condition; limiting outdoor time at dawn and dusk, when mosquitoes are most active, using products with DEET according to the product's label, and reducing mosquito breeding habitats of standing water (empty bird baths and wading pools frequently).

Alternative bug sprays without DEET containing oil of lemon eucalyptus have proven to effectively ward off mosquitoes. A 2005 Consumer Reports study tested oil of lemon eucalyptus as a mosquito repellent and found at least one brand warded off aggressive mosquitoes for up to seven hours and less aggressive mosquitoes for more than 12 hours. Healthy Child Healthy World recommends planting marigolds, lemon thyme, scented geranium and other plants to help deter mosquitoes.

Here are some other recommendations: do not use scented soaps or perfumes; avoid dark clothing, which may attract mosquitoes; and do not use electric "bug zappers," which operate by drawing insects to light, meaning that many predatory insects which may hunt mosquitoes end up dying. (Remember, mosquitoes are drawn to the carbon dioxide we exhale.) The Connecticut Department of Public Health does not recommend limiting outdoor time unless you are in an area with evidence of mosquito-borne disease.

Avoid lawn chemicals. Maintaining a healthy lawn is possible without chemicals. Plant native plants, which are less vulnerable to pests. (Local soil and water conservation districts often sell native plants, usually in annual sales.) Native plants have evolved with Connecticut's climate and wildlife, so often need less care, water, and nurturing than exotic species.

Helpful public programs on healthy lawns include the City of Middletown's Project Green Lawn and Connecticut College's Smaller American Lawns Today, or SALT. As the state affil-

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► This past April, PBS Parents added a Connecting Kids to Nature feature to their program. This site offers caregivers simple things to foster children's natural curiosity about nature, includes information on some of the benefits of getting your family outdoors, and suggests age-appropriate children's literature – great for bedtime stories after a day of outdoor play. Visit their website: <http://www.pbs.org/parents/special/earthday.html>.

► Visit the Children & Nature Network for current research and studies on the benefits of outdoor interaction with children and the consequences that are related to the lack of these experiences. www.cnaturenet.org.

► A recent study found that American children plug into some type of electronic device for 44 hours each week. (That is, TV, computer, digital games, etc.) The National Wildlife Federation initiated a Green Hour. Green Hour recommends one hour of unstructured outdoor play a day for children and provides tips and inspiration to do so. See www.greenhour.org.

► *Zero to Six: Electronic Media in the Lives of Infants, Toddlers and Preschoolers* – Henry J. Kaiser Family Foundation, www.kff.org.

Information on Health Risks

Environmental and Human Health, Inc.: www.ehhi.org.

National Pesticide Information Center: 1-800-858-7378 or see www.npic.orst.edu.

Connecticut Department of Public Health: www.ct.gov/dph.

Connecticut Agricultural and Experiment Station: www.ct.gov/caes.

Centers for Disease Control's National Center for Environmental Health: www.cdc.gov/nceh.

Healthy Child Healthy World (formerly Children's Health Environmental Coalition): www.healthychild.org.

Protecting Children from Pesticides: <http://www.epa.gov/pesticides/factsheets/kidpesticide.htm>.

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iate for National Wildlife Federation, CFPA led a native plant workshop this past spring. Join us next spring for tips and information about native plant gardening, as this will become an annual program.

Play outside

Remember to have fun outdoors. Adults' fears can frighten children as they watch for our reactions to insects and other critters and model our actions. The more informed we are, the better we can be at assessing risky situations and making sound decisions. While a child should be aware of ticks and learn to

check for them, we also should stay calm, be smart, and keep our scare-o-meters at a low setting. We can show children that ticks are a part of life and we can prevent getting hurt by taking precautions and acting sensibly.

More and more studies are showing that experience in nature and unstructured free time to explore the outdoors has a wealth of positive benefits for our children. Free time outside helps children—and adults—embrace creativity, become physically active, improve health, and to de-stress. It is up to adults be educated about the risks that go along with outside play and to use information, not fear, to make the best decisions.

“Children who are less restricted in their access to the outdoors gain competence in moving through the larger world. Developmentally, they should gain the ability to navigate their immediate environs (in safety) and lay the foundation for the courage that will enable them eventually to lead their own lives.”

—National Association for the Education of Young Children (www.naeyc.org)

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UPDATE ON PINCHOT-MUIR THEATER PROJECT

Playwright Stephen Most visits CFPA to Research Gifford Pinchot

CFPA hosted the playwright Stephen Most for two days in February during his week-long visit to the East Coast from his home in Berkeley, California, to conduct research on Gifford Pinchot. Last fall, Mr. Most was commissioned by CFPA to write a play based on the relationship between two icons of the early American environmental movement, namely John Muir and Connecticut-born Pinchot. The play will be performed at the Bushnell Center for the Performing Arts on November 9, 2007, to benefit CFPA's Education Program.

Mr. Most visited the birthplace of Pinchot in Simsbury, spent a day the Yale School of Forestry and Environmental Studies, toured Grey Towers - the Pinchot family estate in Pennsylvania - and examined the Pinchot papers at the National Archives in Washington, DC.

A three-character drama that takes place in the corridors of power, the play exposes the philosophical rivalry between Pinchot and Muir, as each seeks to gain advantage with President Theodore Roosevelt.

“It is our hope that audiences will come away from the performance thoughtful of the balancing act in the conservation debate and mindful of this balance as they make their own life's decisions and decisions regarding public policy,” said Adam Moore, CFPA executive director. The play

also illuminates the signature role of Connecticut in the birth of U.S. environmental history.

Governor M. Jodi Rell will declare November 9 Gifford Pinchot Day. CFPA members will be invited to attend the performance and a reception afterwards.

CFPA developing related study guide, writing workshop

The Association is coordinating the development of a two-phased educational component as part of this project. Phase I will begin this summer as CFPA creates a study guide to be used by adults and students as a tool for learning. A professional development workshop for teachers will be held in August with the Study Guide informing activities. Teachers attending will be invited to the performance with their students.

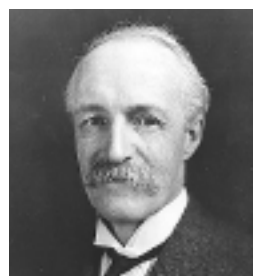
Phase II will engage teachers in a creative writing workshop that will lead to the development of a classroom module correlated to both the Connecticut Framework K-12 Curricular Goals and Standards and the National Standards of Social Studies and the Arts.

The play has been made possible by a grant from the Connecticut Humanities Council and a donation from Astrid and Fred Hanzalek.



Library of Congress

John Muir



Library of Congress

Gifford Pinchot

