# SAFETY & LOSS PREVENTION



# HIDING IN PLAIN SIGHT

Preventing tick-borne illness means knowing where they live and how to avoid them

ALSO INSIDE:

Handling Hazardous Materials

Distracted Driving Awareness Month Work Training & Education Trends

DRM's eLearning System





#### The Trouble With Ticks

They're tiny and stealthy, lying in wait for you to come close enough for them to hitch a ride. Their bite is painless, and if you don't find them in time, they will stay attached until they get their fill — long enough to transmit a number of diseases, some of them deadly.

If you like to spend time outdoors in Florida, especially in wooded or grassy areas, chances are that ticks are out there with you. Unlike mosquitoes, they won't make their presence known, so avoiding tick bites means remembering to be on the lookout for them and protect yourself.

According to the National Institutes of Health, the number of tick-borne illnesses reported across the U.S. has more than doubled over the last decade, and Florida's cases have risen along with the national trend. Whether you spend time outdoors for work or for play, learn how to avoid becoming another tick bite statistic.

Wishing you a safe and happy spring!

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LORI G. TAYLOR

Managing Editor

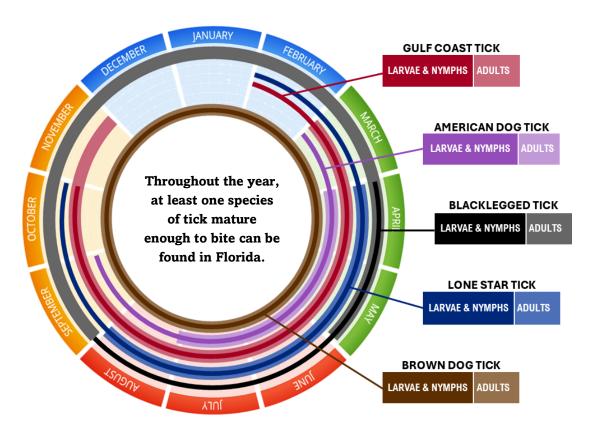
Lori.Taylor@myfloridacfo.com

# SEASON OF THE

When is tick season in Florida?

The answer is YES.

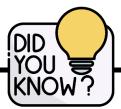
Florida's temperate climate allows people to enjoy every season outdoors — unfortunately, it also gives ticks the opportunity to thrive all year long. Though most people are bitten during the spring and summer, it's important to check for ticks at any time of year after being in a place they likely inhabit.



The cycle for Gulf Coast ticks, American dog ticks, and Lone Star ticks begins in late winter/early spring and goes on until well into autumn. Blacklegged tick larvae and nymphs become active in spring, maturing into adults around the beginning of autumn and continuing throughout the winter and spring — meaning blacklegged ticks (the ones that carry Lyme Disease) mature enough to bite humans can be found at any point throughout the year. And because brown dog ticks can complete their entire life cycle indoors as well as outdoors, their season is year-round too.

But it's not all bad news — new research by the University of Florida's Emerging Pathogens Institute has been working on determining exactly where in the state these ticks live, and it isn't everywhere. Human cases of tick-borne diseases have been reported in 42 of Florida's 67 counties.

Previous research had only been able to predict the likelihood of ticks at the county level. UF research scientists have created maps that measure much more precise regions — each the size of a football field.



Ticks are not insects, but arachnids (like spiders, scorpions, and mites).

Ticks can't jump or fly ... they rely on their hosts coming to them.

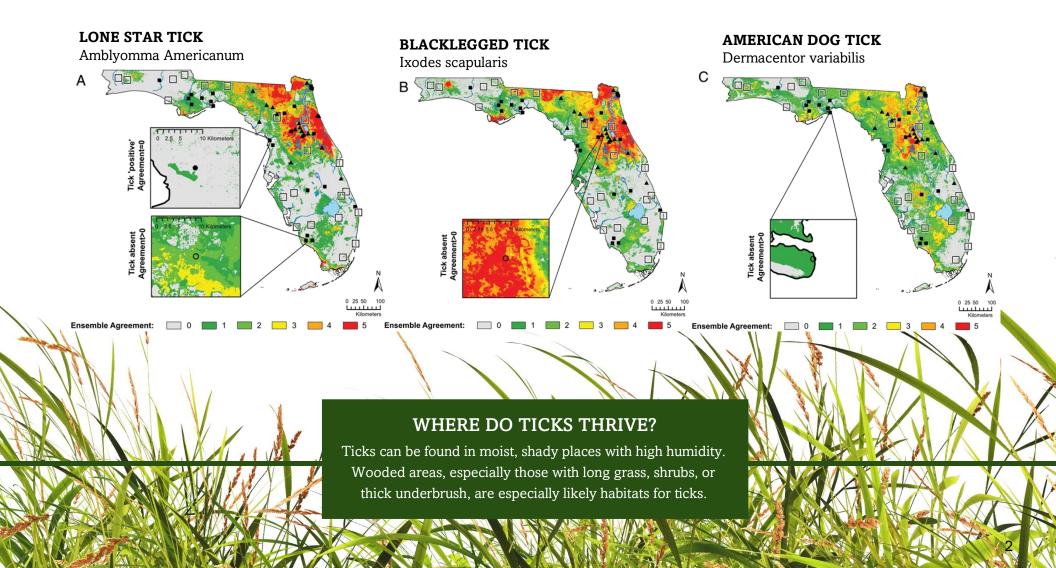
Some ticks can live without a host for two years or more!

### HABITATS OF FLORIDA TICKS

These maps, developed by the Southeastern Center of Excellence for Vector Borne Diseases and published in the Journal of Medical Entomology, show where three "medically significant" species of ticks can reliably be found.

Green areas of the maps represent areas where the ensemble modeling held low agreement for the presence of ticks, and red areas show where they held high agreement.

Researchers found a higher number of Lone Star ticks than either of the other species; however, their presence is more localized as well. All three species are most prevalent in the northeastern quadrant of the state.



#### TYPES OF TICKS FOUND IN FLORIDA

There are approximately 850 known species of ticks in the world, over 90 of which can be found in the United States, carrying at least 20 different illnesses that can be transmitted to humans. More than 50,000 cases of tick-borne illnesses are reported to the Centers for Disease Control and Prevention (CDC) each year, though this number is likely much higher as many cases go unreported.

Here in Florida, our tick population is mostly limited to five major species (listed on the right) carrying a handful of transmittable diseases — but fewer doesn't necessarily mean less dangerous.

Many of the diseases carried by Florida ticks can cause serious, long -term health effects or even death.

Both nymphs and adult ticks can and do bite humans, and because nymphs are so small, they are more likely to evade notice and stay attached long enough to transmit the diseases they carry.



#### AMERICAN DOG TICK (aka WOOD TICK)

(Dermacentor variabilis)
Vector for Rocky Mountain Spotted Fever (RMSF)



#### **BROWN DOG TICK (aka KENNEL TICK)**

(Rhipicephalus sanguineus Latreille) Vector for Rocky Mountain Spotted Fever (RMSF)



#### **BLACKLEGGED TICK (aka DEER TICK)**

(Ixodes scapularis)

Vector for Lyme Disease, Anaplasmosis, Babesiosis, Ehrlichiosis

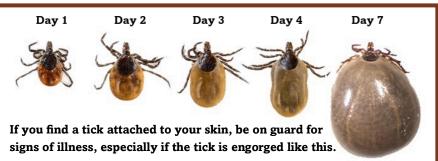


**GULF COAST TICK** (Amblyomma maculatum) Vector for Rickettsia Parkeri



**LONE STAR TICK** (Amblyomma Americanum) Vector for Rickettsia Parkeri, Anaplasmosis, Ehrlichiosis, Southern Tick-Associated Rash Illness (STARI), Alpha-Gal Syndrome (AGS)

Ticks grow and change quickly as they feed. The longer they stay attached to the host, the higher the risk of transmission of infection and disease.





### OUTDOOR WORKERS AT GREATER RISK

Whether you spend time outdoors for work or for recreation, the possibility of encountering ticks is something to consider. However, statistics suggest that those who work in tick-infested areas have a higher risk of contact and bites than those who play in them. This makes sense because many outdoor workers are more likely to need to go off the beaten path — especially those whose job it is to "beat the path" for others to enjoy safely.

It's no surprise that park rangers, fish and wildlife officers, land managers, and those who work in forestry would be at increased risk of tick-borne illnesses. But let's not forget surveyors and law enforcement officers working in rural areas, construction workers and landscapers dealing with overgrown properties, and biologists and students gathering samples out in the field.

Because these workers are on the front lines in the battle against ticks, it's essential that they are provided the means to protect themselves — through education, the use of personal protective equipment, and encouragement from supervisors and coworkers.

With the increase of tick-borne illnesses, particularly Lyme disease, impacting Florida's outdoor workforce, supervisors and their employees would benefit from agencies taking a more proactive approach to protect outdoor workers.

The early symptoms of tick-borne illnesses, such as headache, fever, muscle aches, etc., can cause employees to miss work; more severe symptoms such as memory loss, difficulty concentrating, mood swings, loss of muscle control, and dizziness, may lead to a loss of productivity and/or extended absence from work. Because tick-borne illnesses can take days or even weeks to develop, outdoor workers may find it difficult to prove the exposure happened while on the job, complicating the workers' compensation injury claim process.



Outdoor workers are 3-10 times more likely to be infected with a tick-borne illness than indoor workers.

Those who work in tick habitats are around twice as likely to be bitten by a tick than those who recreate in those areas.



Conservation law enforcement officers are 5 times more likely to be infected with Lyme disease than any member of law enforcement has of being attacked with a firearm.

#### FLORIDA TICK-BORNE ILLNESSES

Fig. A: Early-stage RMSF rash

#### **ROCKY MOUNTAIN SPOTTED FEVER (RMSF)**

One of the deadliest tickborne diseases in the Americas

#### **VECTOR**

Marican dog tick & brown dog tick

#### **SYMPTOMS**

- Onset in 3-12 days after tick bite
- First symptoms include high fever, headache, lack of appetite, muscle pain or soreness, nausea & vomiting, stomach pain, sensitivity to light, and early rash (2-4 days after onset of fever)
- Rash typically appears 2-4 davs after onset of fever appearance can vary widely over the course of the illness, from red splotches to pinpoint dots (see **Fig. A & B**)
- Fig. B: Late-stage RMSF rash severe and include: confusion, shortness of breath, anxiety, seizures, numbness

# **\*\*** Later symptoms are more

#### TREATMENT & PROGNOSIS

- Treatment with 7-10 day course of antibiotics (doxycycline) necessary
- **Symptoms** typically improve within 48 hours from start of treatment
- ₩ Chance of recovery good if treated promptly; 5-10% chance of death even with treatment
- Long-term effects after a severe infection may occur. including: nerve damage, paralysis, hearing loss, speech difficulties, vision loss, neurological difficulties, vertigo

#### RICKETTSIA PARKERI (RICKETTSIOSIS)

RMSF's milder cousin

#### **VECTOR**

Reprimarily the Gulf Coast tick, possibly the Lone Star tick

#### **SYMPTOMS**

- M Onset in 2-10 days after tick bite
- In almost all cases, a lesion (known as an inoculation eschar) forms at the bite site (see Fig. C), followed by other symptoms similar to but milder than RMSF: fever, headache, rash, muscle aches



Fig. C: Inoculation eschar caused by bite from tick infected with Rickettsia parkeri

#### **TREATMENT & PROGNOSIS**

- ₩ Some cases resolve on their own, but treatment with 7-10 day course of antibiotics (doxycycline) is recommended
- ## Full recovery expected after treatment; no long-term side effects

#### **EHRLICHIOSIS & ANAPLASMOSIS**

Two similar and dangerous illnesses on the rise in the southeast

#### **VECTOR**

- ₩ Blacklegged tick (anaplasmosis) and Lone Star tick (both diseases)
- Because Florida's blacklegged tick can transmit both anaplasmosis and Lyme disease, patients who become sick after being bitten must be treated for both diseases

#### **SYMPTOMS**

- ₩ Onset in 5-14 days after tick bite
- Symptoms can include fever or chills, severe headache, muscle aches, gastrointestinal symptoms, malaise, altered mental state, and occasionally a rash (more common with ehrlichiosis)

#### **TREATMENT & PROGNOSIS**

- \*\* Treatment with antibiotics (doxycycline) necessary; minimum 5-7 days for ehrlichiosis, minimum 10-14 days for anaplasmosis (in case Lyme disease is also present)
- ₩ Full recovery expected with early treatment

#### FLORIDA TICK-BORNE ILLNESSES

#### LYME DISEASE

The most common vector-borne disease in the United States

#### **VECTOR**

Blacklegged tick

#### **SYMPTOMS**

- ₩ Onset in 3-30 days after bite
- Early symptoms include a bullseye-shaped rash (see **Fig. D**), fever, headache, muscle pain, fatigue, swollen lymph nodes
- Untreated or unnoticed early Lyme disease will progress to chronic disease for about 60% of patients and will manifest in multiple ways, including neurologic (Bell's palsy, meningitis, neuropathy, brain swelling), cardiac (irregular heartbeat), and rheumatologic (transient arthritis of multiple joints, muscle and bone pain)

#### TREATMENT & PROGNOSIS

- Treatment with 10-14 day course of antibiotics (doxycycline) necessary
- Ratients treated in the early stages usually make a full recovery
- Those diagnosed in the later stages may have persistent or recurrent symptoms and may benefit from a second course of antibiotics
- If an engorged blacklegged tick has been found attached to a person, a prophylactic dose of antibiotics may be suggested within 72 hours of removal of the tick

#### SOUTHERN TICK-ASSOCIATED RASH ILLNESS (STARI)

Lyme disease look-alike

#### **VECTOR**

**#** Lone Star tick

#### **SYMPTOMS**

- ₩ Onset in 3-30 days after bite
- Symptoms are indistinguishable from those of early Lyme disease and include a bullseye-shaped rash (see **Fig. D**), fever, headache, muscle pain, fatigue

#### **TREATMENT & PROGNOSIS**

- Treatment with 7-10 day course of antibiotics (doxycycline) recommended
- \*\* Patients quickly make a full recovery after treatment; chronic symptoms like those seen with Lyme disease are unlikely



**Fig. D**: Rash associated with both Lyme disease and STARI

Because the rash for STARI looks and acts just like that of Lyme disease, it's important to get treatment quickly.

- Begins 3-30 days after tick bite
- Expands over several days, often clearing as it enlarges, resulting in the "bullseye" appearance
- May feel warm to the touch, but not itchy or painful

WHAT TO DO IF YOU FIND A TICK ATTACHED TO YOUR SKIN

- 1. Using tweezers, grab the tick close to its head or mouth. DO NOT use bare fingers. Use a tissue or paper towel if needed.
- 2. Pull the tick straight out using a slow and steady motion. Avoid squeezing or crushing the tick. If any parts of the tick remain in your skin, do not attempt to remove them, as this could cause a skin infection.
- 3. Clean the area and your hands thoroughly with soap and water.
- 4. Save the tick in a jar or take a photo of the tick to show your doctor if you become sick.
- 5. Be on the lookout for the next several weeks for signs of tick-borne illnesses.



Tick embedded in a human host

#### FLORIDA TICK-BORNE ILLNESSES

#### **ALPHA-GAL SYNDROME (AGS)**

A little-known sudden, serious allergy to red meat

#### **VECTOR**

₩ Lone Star tick, though other species of ticks have not been ruled out

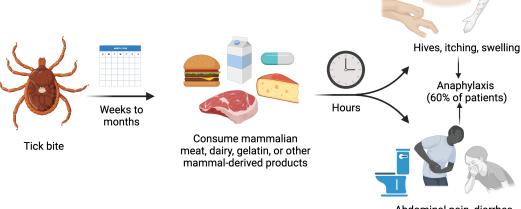
#### **SYMPTOMS**

- Symptoms commonly appear 2-8 hours after eating meat, dairy, or gelatin, or after exposure to products containing alpha-gal (galactose), such as gelatin-coated medications
- Reactions can range from mild to severe or even life-threatening: may not occur after every exposure to alpha-gal
- Symptoms include hives or itchy rash, nausea or vomiting, heartburn or indigestion, diarrhea, cough, shortness of breath or difficulty breathing, drop in blood pressure, swelling of the face or throat, dizziness or faintness, severe stomach pain, arthritis, and anaphylaxis (may be life-threatening)

#### **TREATMENT & PROGNOSIS**

There is no cure for AGS, but symptoms can be managed under the care of an allergist or other healthcare provider, and by avoiding foods and products containing alpha-gal

Prevent future exposure to ticks, as new tick bites may reactivate AGS reactions



Abdominal pain, diarrhea, nausea, vomiting

#### WHO HAS ALPHA-GAL SYNDROME?

Up to 450,000 Americans have AGS, the CDC estimates.

Up to 2-3% of the population in the most affected areas have AGS.

35% or more of some populations are sensitized to alpha-gal.

Lone Star Tick Range



#### ALPHA-GAL SYNDROME IS THE ...

trigger of anaphylaxis in adults

cause of adult onset food allergy in high prevalence areas

most common food allergy in the United States

#### FOODS & PRODUCTS THAT MAY CONTAIN ALPHA-GAL

- Red meats such as beef, pork, lamb, venison, rabbit, etc. (organ meats have higher levels)
- Milk & dairy products
- Gelatin made from beef or pork
- Products made from or cooked with mammalian fat (lard, tallow, or suet)
- Meat broth, bouillon, stock, or

- Certain medications & vaccines containing additives, stabilizers, or coatings
- Animal-derived medical products, such as heart valves from pigs or cows, monoclonal antibodies, heparin, and certain anti-venoms
- Cosmetics or skin care products containing gelatin, glycerin, magnesium stearate, or bovine extract

Source: Centers for Disease Control and Prevention, National Center for Emerging and Zoonotic Infectious Diseases (NCEZID)



#### **CREATING A TICK-FREE ZONE**

These simple landscaping techniques can help reduce tick populations:

- Clear tall grasses, brush piles, and overgrown plants around the home and at the edge of lawns; keep shrubs pruned.
- Place a 3-foot barrier of wood chips (especially cedar) or gravel between lawns and wooded areas.
- Keep the lawn mowed and leaves raked or mulched (ticks and the small animals they feed upon love to hide in piles of leaves and other yard debris).
- Keep recreation and seating areas away from wooded areas and in an open sunny area, if possible (ticks love shade).
- W Use "hardscaping" (i.e., landscape with hard materials such as cement, brick pavers, stone, or gravel).

- Remove any trash or debris around the yard that may serve as a place for ticks to hide.
- Landscape with plants that repel ticks, such as garlic, sage, mint, lavender, beautyberry, rosemary, and marigolds.
- W Use birdfeeders to encourage wild birds that eat ticks to your yard; domestic birds such as ducks and chickens can also help control the tick population.
- Discourage wildlife that carries ticks, such as deer and mice, by choosing plants that deer won't eat, using fences, and cleaning under birdfeeders and around pet bowls.
- Apply a tick pesticide to the yard (or hire a professional pest control company).

#### **AVOIDING TICKS AWAY FROM HOME**

Here are some tips to avoid ticks when venturing out in nature:

- \*\* Choose hiking and recreational spots such as parks with well-maintained trails, and stay on them, especially in the summer.
- Avoid walking in wooded areas with lots of underbrush, high grass, or excess leaf litter.
- Walk in the center of paths and avoid encroaching branches.
- Wear proper clothing light-colored, long-sleeved shirts and long pants; tuck shirt into pants and pant legs into socks; and a hat to protect your head.
- Apply insect repellent to skin, clothing, and hiking gear, and/or use clothing and gear that has been pretreated with tick repellent.

#### AFTER BEING OUT IN TICK TERRITORY:

- Do a thorough tick check under the arms, in and around the ears, inside the belly button, behind the knees, around the waist, between the legs, and through the hair.
- **Shower within two hours of being outdoors.**
- Put your clothes in the dryer on high heat for 10 minutes to kill any stray ticks.



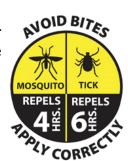
#### TICK REPELLENTS

#### FOR CLOTHING & GEAR:

- Treat boots, clothing (outer layers only), and camping gear with a product containing 0.5% permethrin. It should stay effective through several washings. Wash treated clothing separately from the rest of the laundry.
- Buy clothing and gear pretreated with permethrin and follow the label instructions.

#### FOR USE ON SKIN:

- Choose a product containing at least 20% of one of the following active ingredients: **DEET**, **picaridin**, **IR3535**, **Oil of Lemon Eucalyptus** (OLE), **para-menthane-diol** (PMD), or **2-undecanone**.
- **DO NOT USE** permethrin on skin.
- The EPA has developed a list of registered insect repellents that are considered safe and effective for use on skin. Look for this awareness graphic on the label. Choose a product with a protection time that works for your expected activity, and reapply as necessary.
- Use the <u>EPA's insect repellent search tool</u> to find the right product for your needs.



### OTHER TOOLS

TICK REMOVAL:

This tick key can be attached to any key chain and eliminate the need to pack tweezers for easy onthe-go removal of ticks.





# What are the requirements for labeling secondary chemical containers?

September 24, 2023 Colwin Chan, marketing director, Avery Products Corporation

When handling hazardous chemicals in the workplace, ensuring safety is essential. A secondary container is used when transferring chemicals from the original container to a new one. Examples of secondary containers include spray bottles, jugs, glass bottles, cans, and pails. The use of secondary containers is common in various industries and occupations, including manufacturing, janitorial and sanitation, health care, education, and hospitality.

The requirements for labeling hazardous chemicals in the United States are established by OSHA's standard on hazard communication (1910.1200), which is aligned with the Globally Harmonized System of Classification and Labeling of Chemicals — also known as GHS.

To better understand secondary container labeling, it's important to address primary container labeling as well. A primary container is the original container in which a chemical arrives from the supplier. The primary container should have been shipped with a label that includes all of the GHS label elements that are required by 1910.1200. This information is also outlined in Section 2 of the Safety Data Sheet provided by the chemical supplier.

# The six elements of a compliant GHS label for primary/shipped containers:

**Product name/identifier:** Identifies the substance and should match the product identifier on the SDS.

**Signal word:** Signal words indicate the relative severity of the hazard ("Danger" or "Warning").

**Hazard statement:** A statement that specifies the nature of the hazards. Pictograms: Symbols that convey health, physical and/or environmental information for quick recognition.

**Precautionary statements:** Measures that could be used to minimize and/or prevent the effects of the hazard, including first aid.

**Supplier identification:** Includes name, address, and telephone number of the supplier.

When it comes to labeling secondary containers, the hazcom standard allows for some limited flexibility. For example, there's a labeling exemption when a chemical that's transferred to a secondary container is used immediately within a work shift by the same person who transferred the chemical.

OSHA labeling requirements for secondary containers that don't qualify for an exemption should include, at a minimum, the product name/ identifier as well as general hazard information communicating physical and health hazards associated with the chemical. This flexible stance on secondary container labeling means that alternative labeling methods such as Hazardous Materials Identification System or National Fire Protection Association labels can still be used for secondary containers. as long as they're consistent with 1910.1200 and the employer can show that employees understand the hazards at a level equal to what would have been accomplished using a full GHS label. It's also important to note that the hazard rating systems for GHS versus HMIS or NFPA are reversed. GHS ratings run from 1 through 5, with 1 being the most hazardous, while HMIS and NFPA ratings run from 4 through 0, with 4 being the most hazardous.

Although a GHS label doesn't show the rating number on the label, it can still potentially cause confusion. Overall, it's best to use a fully compliant GHS label for your secondary containers to keep employees safe and ensure compliance in case of an OSHA inspection.

# RICTOGRAMS

A **pictogram** is a graphic image that represents the hazard present when using a certain product or chemical. Manufacturers are required to include these pictograms on **primary container labels** and safety data sheets for their products, along with other information. Employers must make this information available for any employees who handle or are exposed to these products.

Many **secondary containers** require labels as well (see article on page 10), unless the worker using the product transfers it to the secondary container themselves, is the only person using the product, and empties the container at the end of use.

Examples of secondary containers that don't require a label:

- a mop bucket filled with water and floor cleaner
- a paint roller tray filled with paint
- a pressure washer containing water mixed with bleach or other cleaning solution



Only containers meant for the task must be used as secondary containers. Containers originally intended for another product (e.g., plastic water bottles, soda cans, cups, etc.) should never be used as secondary containers, with or without a label. Not only could a person mistake the product for something else and use it improperly (such as ingesting a chemical stored in a water bottle), the container may contain trace amounts of the original contents, which could unknowingly combine in dangerous ways. And should an accident occur, medical staff may not have time to administer the proper treatment without a label listing the contents.

# CAN YOU MATCH EACH SYMBOL TO ITS HAZARD?

Find the pictogram pictured on the left that corresponds with the hazard description listed below.

Answer key on page 17.

- A. Explosion or reactivity hazard
- B. Fire hazard
- C. Oxidizing hazard
- D. Gases under pressure
- E. Corrosive damage to metals, as well as skin and eyes
- F. Can cause death or toxicity with short exposure to small amounts
- G. May cause or suspected of causing serious health effects
- H. May cause less serious health effects or damage the ozone layer
- I. May cause damage to the aquatic environment

**NEVER use bottles normally used for drinking water as secondary containers!** 



#### MORE THAN JUST TEXTING

Anything that diverts your hands, eyes, or attention away from the primary task of driving is a distraction. This includes not only texting, but cellphone use of any kind (even hands-free), engaging with passengers or pets, eating or drinking, grooming, or adjusting the radio or climate control settings.

#### DISTRACTED DRIVING CRASHES ARE UNDERREPORTED

Police reports indicate about 3,100 deaths caused by distracted driving per year — about 10% of all motor vehicle fatalities. But because distracted driving can be hard to prove after a crash, these numbers are likely much greater — the NHTSA believes fatalities to be closer to 10,000 (29%) per year.

#### PAST PERFORMANCE DOES NOT GUARANTEE FUTURE RESULTS

When we make bad driving decisions and "get away with it" without consequence, our brains trick us into believing we are immune to the dangers, when in reality we have just been lucky. We are not less likely to cause a crash just because we have not yet done so.

#### PRACTICE DOES NOT MAKE PERFECT

People who use their cellphone regularly while driving do no better in studies than those without real-world experience. In fact, research shows that they tend to drive more dangerously in other ways as well — speeding, changing lanes more often, braking harder, and even driving under the influence. One year-long study found that drivers who spent the most time interacting with a cellphone had the highest rates of crashes or near misses.

#### YOU ARE NO EXCEPTION

Three out of four people believe they have above-average driving skills, and for many, that means better at driving while distracted. In a recent survey by the AAA Foundation for Traffic Safety, 84% of drivers recognize that texting while driving is dangerous, yet 36% admitted to doing it anyway. People who notice erratic driving by others using cellphones rarely think that their own driving is impaired in the same way — we are simply overconfident in our own ability to multitask.

#### There are three types of distractions ... using a cellphone involves all of them.



VISUAL DISTRACTIONS



Take your eyes off the road





Take your hands off the wheel



Take your mind off of driving

Research indicates drivers using cellphones see only about half of all the information in their driving environment, even when using voice control features and hands-free devices. This phenomenon is called "inattention blindness" and can cause drivers to miss what's right in front of them.

# One in five people killed by distracted drivers are not in a motor vehicle.



# STOP DISTRACTED DRIVING



#### Turn off the "infotainment"

Set audio, navigation, and climate controls *before* you start driving—then turn off the screen.



#### Know where you're going

Look at the route on GPS in advance.



#### Remove the temptation

Turn your phone off and put it out of reach.



#### Turn to technology

Download an app that will prohibit cell phone use while the vehicle is in motion.



# Take the NSC Just Drive Pledge

Go to nsc.org/pledge and commit to driving distraction-free.

# Trends in ... training and education

December 21, 2023 Jennifer Yario

As Christine Robinson, a professor at Columbia Southern University, says: "Training and educating workers has changed quite a bit in the last three years. Most of the technologies are not new; however, they're being used in new areas."

Added Kelley Norris, vice president of implementation services at SafeStart: "The use of technology as a vehicle for learning is a major topic at the moment. Advancements in tech and generative AI are driving the conversation, and I see tremendous opportunities for both safety and learning.

"However, we can't lose sight of the value of building relationships with our colleagues to drive learning outcomes. Technology can only do so much, and you still need to effectively communicate to build engagement ... for real change to take place."

Not only that, "Every employee might have a unique learning style," says Shawn Smith, product director for training at KPA. "It's important to offer a diverse set of training options to support a strong safety culture and foster healthy safety habits. Learner engagement is the key—you want to offer training that engages your employees and helps reinforce critical safety concepts that are relevant to them."

All three experts cited the challenges of not having face-to-face training to ensure understanding among workers. These challenges, Robinson said, include presenters not being able to connect with students and missing facial expressions and nonverbal cues that indicate students are following what's being taught.

So, what can employers do?

"Just as there are many ways to learn, the more opportunities to share information — virtually and in person — the better," Robinson suggests. This can be done through webinars, electronic tests, videos and online conferences — in addition to the traditional classroom environment that some workers may prefer. Norris noted that employers who "permit the use of mobile devices have an opportunity to deliver valuable content" to students who like to learn that way.

A final bit of advice from Norris: "Build a strategic roadmap and then establish a governance team to hold others accountable and build appropriate training plans more in line with the organization's core values and outcome expectations."



**The digital revolution** has drastically changed nearly every aspect of our lives, including training and education in the workplace. Seminars, workbooks, and even videos seem to be a thing of the past, and today's employees prefer, and even expect, more ways to learn and stay engaged at work.

Here are some learning and development trends the experts say can help employers stay ahead of the curve:



#### **Reskilling & Upskilling**

Teaching skills to keep pace with rapidly changing technology and digital transformation can allow employers to create the workforce they need.



#### **VR & AR Training**

Virtual & augmented reality bring immersive, interactive experiences to reshape professional learning with real-life scenarios in a safe and fun environment.



#### **Hybrid Learning Model**

Giving employees both structured and centralized or flexible and decentralized training through a variety of in-person and digital resources can help meet the needs of individuals and the organization.



#### **Microlearning**

Short, focused content delivery offering diverse & flexible learning formats that align with modern attention spans & lifestyles by breaking down learning into small, easy to digest segments.



#### **Adaptive Learning**

Personalized educational content using adaptive platforms powered by artificial intelligence can further close the digital gap.



#### Gamification

Integrating game elements in education can enhance engagement, performance, and retention by making learning more challenging and fun.

#### Miss a previous issue? Browse the

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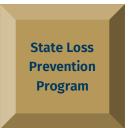
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# Molly Merry, CPA

**Division Director** 

## **Kelly Fitton**

**Assistant Division Director** 

## Jeffrey W. Cagle

Chief of Risk Financing & Loss Prevention

# Wendy McSwain, MSA

Loss Prevention Section
Administrator

Office of the Director (850) 413-4700

State of Florida Loss Prevention Section (850) 413-3121

Bureau of State Liability & Property Claims (850) 413-3122

Bureau of State Employee Workers' Compensation Claims (850) 413-3123

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PICTOGRAMS (pg. 11) Answer Key:

1: F 2: B 3: E 4: H 5: D 6:G 7: A 8: I 9: C

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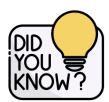


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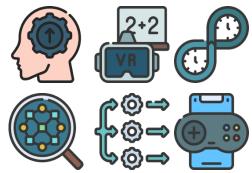
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