



Twelve Eighty-Two

Spring Issue: Volume 4 Issue 1

*The Public Health Preparedness Community
Newsletter from the Bucks County
Department Of Health*



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A New Year, A New Look

A New Design

The Public Health Preparedness Program is taking on an exciting new look this year with some big changes. The newsletter has taken on a new modern design to reflect the revamped Public Health Program. With it comes a new name *Twelve Eighty-Two* derived from the address of our main office.

A New Team, A New Focus

This year saw the addition of new staff with Drew Dycus starting in June and Fallon Maggio starting just after the new year. The new team is revamping its focus on community preparedness, engaging new partners across both the county and the region. In the coming months we will be rolling out new training offerings for both individuals and organizations. We will also be looking for new events to attend, pushing our reach further than ever before.



A New Social Media Presence

At the end of January the Health Department made its first appearance on social media with the unveiling of Facebook and Twitter profiles. The Facebook page is being managed across the Department with each of the Department's programs contributing content to the page. The Public Health Preparedness Program will be regularly posting information on preparedness, training offerings, and will be using the platform to push out critical information during emergency events. Dr. Damsker will be utilizing Twitter under the handle @buckshealthdept. Tweets from this account come directly from Dr. Damsker and will be a new channel for him to directly communicate with the community.

A New Voice

We want to hear from you! What topics are you interested in? What stories do you want read? Let us know!

Email: ddycus@buckscounty.org

Upcoming Training Offerings

April 5th	6:30 pm to 8:30 pm	Responder Health and Safety	Open to all community members
April 29th	9:00 am to 12:00 pm	Techniques Psychological First Aid & Fundamental Mental Health	Open to all community members
May 13th	8:00 am to 3:00 pm	Working Across Barriers- A workshop on interacting with diverse populations	Open to all community members
May 23rd	6:30 pm to 8:30 pm	Whole Community* <i>Training Subject to Change</i>	Open to all community members
June 14th	6:30 pm to 8:30 pm	Medical Reserve Corps Orientation	MRC volunteers and individuals interested in joining

All trainings held at
1282 Almshouse Rd. Doylestown, PA 18901

These trainings are presented as part of the Medical Reserve Corps ongoing training series. To learn more about the Medical Reserve Corps or to join follow this link:
<http://www.buckscounty.org/medicalreservecorps> or contact the MRC at
HDbrmrc@buckscounty.org

Avoiding the Itch and the Disease: Which repellents keep the mosquitoes and ticks away?

It is about that time of the year when mosquitoes and ticks start biting again. You can expect to start seeing mosquitoes as early as April and ticks by May. In the next few months you can also expect to be hearing a bit more about diseases spread by these arthropods. As we move into our second summer of Zika you will likely be hearing a lot about mosquitos, but it is important to keep ticks in mind as well. Ticks and mosquitoes are not just annoying pests that leave you itchy. Together these arthropods are responsible for most of the emerging infectious diseases in the world today. Additionally, with only a few exceptions, the disease spread by these arthropods cannot be prevented by vaccinations. The best defense against these highly efficient arthropods is taking measures to avoid getting bitten. One of the best options for the last several decades has been the use of insect repellents. However, not all repellent methods are equal. Read our guide to insect repellents on the next two pages.



What Works!

DEET

Commonly considered the gold standard of repellents, this chemical ingredient has for decades proven itself as effective against mosquitoes and ticks. Decades of use of DEET have not resulted in any significant detriment to health including no evidence of causing cancer or resulting in birth defects when used as directed.

Protection

DEET at less than 10% concentration typically provides 1-2 hours of protection against ticks and mosquitoes. A 20-30% concentration product can potentially provide all-day protection from mosquitoes and ticks.

Other Considerations

- ◆ Should not be worn under sunscreen or clothing
- ◆ Effectiveness plateaus at concentrations of 50%.
- ◆ Avoid products with more than 30% DEET, try time-release products when you need multi-hour protection
- ◆ Strong eye irritant
- ◆ May damage some plastics and fabrics

Picaridin

A chemical found in plants that produce black pepper. Some studies have indicated that picaridin may be slightly more effective at repelling mosquitoes than DEET and may also provide longer protection times.

Protection

A 5-10% concentration can provide a short protection time of 1-2 hours with the potential for up to 4 hours against ticks and mosquitoes. A 20% concentration product may provide all-day protection from mosquitoes and ticks.

Other Considerations

- ◆ Odorless
- ◆ Non-irritating
- ◆ Does not melt plastics

IR3535

This chemical has been used in Europe for more than 20 years with no serious adverse effects reported. Evidence suggests that IR3535 is as effective as DEET at repelling ticks, but is slightly less effective than DEET at repelling mosquitoes. Studies have also indicated that IR3535 does not last as long as DEET.

Protection

A 20% concentration can provide up to 8 hours of mosquito protection and 6 to 12 hours of tick protection.

Other Considerations

- ◆ Concentrations weaker than 10% may not be effective
- ◆ Avoid brands with added sunscreen
- ◆ Serious eye irritant
- ◆ Melts some plastic and damages some fabrics

Oil of eucalyptus

Oil of Lemon Eucalyptus originates as an extract of the eucalyptus tree. The tree extract can be refined to create an oil known as, PMD, with a concentration ranging from 1 to 65 percent. Some testing has shown that concentrations of 20% to 26% PMD may perform as well as 15% to 20% DEET against mosquitoes and may potentially provide better protection against ticks than DEET.

Protection

A 30% concentration of Oil of Lemon Eucalyptus (19% PMD) provides up to 6 hours of protection against mosquitoes and ticks. 10% provides 2 hours of protection against mosquitoes and ticks.

Other Considerations

- ◆ Not recommended for use on children 3 years old and younger
- ◆ Can irritate lungs
- ◆ Possible allergens

- ◆ **Do not rely on just repellents. Use clothing to protect as much skin as possible and perform regular tick checks.**
- ◆ **Always follow the product label instructions.**
- ◆ **When used as directed, these insect repellents are proven safe and effective even for women who are pregnant or breastfeeding.**
- ◆ **Reapply insect repellent as directed.**
- ◆ **Do not spray repellent on the skin under clothing.**
- ◆ **If you are also using sunscreen, apply sunscreen first.**

What To Avoid

Citronella, Catnip Oil, and Botanical Blends

- ◆ Less effective than DEET, picaridin, IR3535, and oil of eucalyptus at repelling certain mosquitoes and ineffective at repelling some species of mosquitos. These substances also require frequent reapplication.

Candles

- ◆ Evidence strongly suggest that they are ineffective at repelling mosquitoes and provide no protection from ticks. Additionally, they emit fumes that could trigger respiratory problems.

Bug zappers

- ◆ Have been shown to be ineffective, expensive, and may actually increase mosquitoes in the area. They also kill beneficial insects including ones that eat mosquitos.

Clip-on repellents, Insecticide fans

- ◆ Studies have shown that these wearable devices do provide protection against mosquitos. However, the protection they provide is less than the protection of repellants applied directly to the skin. Additionally, there protective benefits may decrease with activities that involve high amounts of movement. Importantly, it is unclear if these devices provide any protection against ticks.

Other Wearable Devices (transdermal patch, wristbands, sonic devices)

- ◆ Numerous studies have shown these devices to provide no protective benefits.

Essential oils

- ◆ Have shown to provide minimal to no protection, and many individuals may experience irritation and allergic reactions.

Organization Spotlight: Pennsylvania State Animal Response Team & Bucks County Animal Response Team



The Pennsylvania State Animal Response Team (PASART) was created through a private-public partnership to serve as a unifying network of organizations, businesses, federal, state, county and local government agencies, and individuals that support the prevention, preparedness, response and recovery for emergencies affecting animals. Because disaster response needs to happen at a local level, PASART builds County Animal Response Teams (CARTs) across the state.

Bucks County Animal Response Team (BCART) is dedicated to helping people prepare themselves and their pets for emergencies. During emergencies, BCART volunteers may establish and operate an emergency pet shelter in conjunction with a human shelter. BCART volunteers come from all walks of life and county teams work with local veterinarians, law enforcement, and emergency management on behalf of animal safety and assistance during crises. BCART is always in need of volunteers. To find out more or to join email buckscart@gmail.com



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