

# FROM THE FRONT

QUESTIONS? Contact Kathie Ragsdale at [concord@wickedlocal.com](mailto:concord@wickedlocal.com) or 978-371-5742.

## TICKS

From Page A1

for a community innovation challenge grant to fund testing on 100 ticks per town. Rask said residents jumped at the chance to test the ticks they found.

"We got the word out on the street and within weeks we'd hit (100)," Rask said. "It couldn't be simpler in terms of submitting a tick." The lab continued testing ticks even after towns hit their 100 submissions; as of July 18, 151 ticks had been submitted from Concord. Thirty-five percent of 133 ticks tested were positive for DNA from *Borrelia burgdorferi*, the microbe that causes Lyme disease.

"By creating the economy of scale we dropped the cost to test ticks for anybody in the state from 140 to 50 dollars," Rask said. "We feel like that's a great thing."

Rich receives mainly adult ticks, although the nymphs tend to be more dangerous because they are harder to notice and thus more likely to be attached for longer. "We're really into the nymph season now. It's really easy to be bitten and not know," said Rask, comparing the nymphs to poppy seeds or "the teeniest scab that would form if you had been pricked by a rose."

Emerson rheumatologist Alan Marks and Rask agreed that the risk for acquiring Lyme disease is strongly correlated to the length of time the tick is attached.

"The tick has the microorganisms in its gut. When it attached to you it sends its little hypostome into your skin and it opens this little pathway to suck blood. (When) it regurgitates its gut contents, that's when the pathogen is transmitted to you," Rask explained. The *Borrelia spirochete* itself does not produce antigens that scientists have been able to identify, according to Rich.

"They're not doing anything particularly insidious in and of themselves. What causes disease is our bodies reacting to them," Rich said. "Our body doesn't really know how to behave with that particular bacteria. It has kind of an inappropriate response."

"I saw probably the first case of documented Lyme disease in the Concord area in the late '70s or early '80s,"

said Marks, who estimates he currently sees five to 10 Lyme arthritis patients per year and five to 10 Lyme disease patients per year pre-arthritis, which is a standard symptom of chronic Lyme.

### Concord data

In the 2013 annual town report, Lyme disease was Concord's second most common reported communicable disease, behind only Rocky Mountain Spotted Fever (transmitted largely by dog ticks). In 2007-2013 medians, Lyme disease has no equal; 84 cases were reported in 2008 alone.

Marks said patients both underreport the disease, since initial symptoms may disappear in a few days, and over-report it thanks to the reputation Middlesex County has as a haven for ticks and the diseases they carry. The Massachusetts Department of Public Health reported 720 confirmed cases of Lyme in the county out of just over 4,000 cases in 2013 -- more than any other single county.

Even physicians can have trouble identifying the disease, said Marks, because the test can give false negatives if used too early.

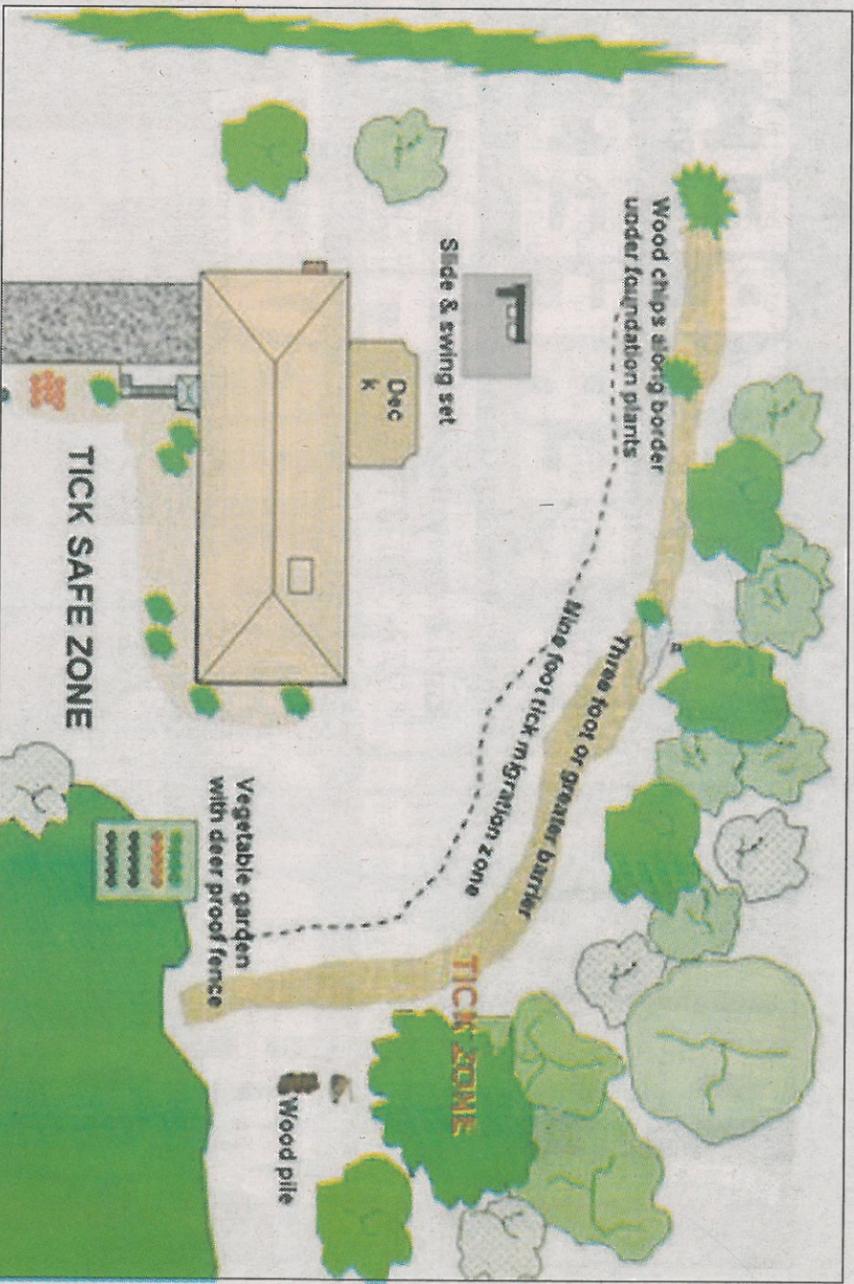
"In the early manifestations, it looks like a simple virus," Marks said. Rask encouraged residents who feel like they have the "summer flu" to visit the doctor.

### Support systems

Fred Cheslek of Clinton runs the Metrowest Lyme Support Group, originally founded as the Concord Lyme Support Group by Rose Ruze. He said the variety in symptoms leads to frustrated patients whose doctors will not believe them; he himself had Lyme for about two decades before seeing the disease in his son prompted recognition of his own.

"I've had essentially a textbook case of it. I had this mystery flu where we thought I had mono... In college I had Bell's palsy: half of my face was paralyzed for three months," said Cheslek, who even had a recurring rash. And then came the joint issues characteristic of chronic untreated Lyme.

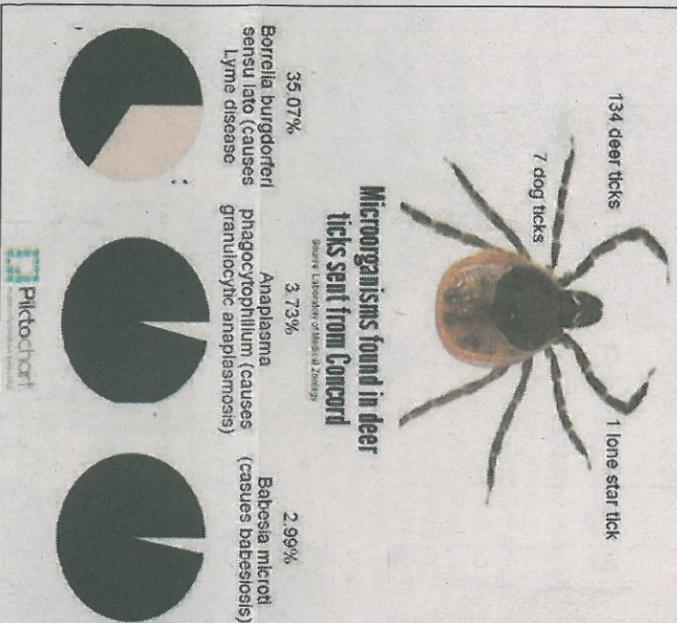
Cheslek said the antibiotics he has been on have helped immensely with knee pain and clearing the



An illustration of how to create a tick-safe zone. COURTESY IMAGE / CONCORD HEALTH DEPARTMENT

## By the numbers

Ticks from Concord tested between April 19, 2014 and July 18, 2014



mental fuzziness he was experiencing.

"It does some pretty wacky things to your head," Cheslek said, talking about constant headaches, spontaneous crying jags, sleep issues and "brain fog."

"You can cure the disease in almost all cases," Marks said; doctors have had consistent success with antibiotic treatments,

including, sometimes, prophylactic antibiotic treatment after removal of engorged ticks that have been attached for several days.

"The most common way to successfully remove them is with a pair of forceps and to gently pull up and out," Marks recommended.

### Fighting the disease

The easiest way to fight Lyme? Prevent it. URI's "Tick Guy," Dr. Tom Mather, is a blunt, spirited warrior in the battle against tick-borne diseases. He and his research team created the TickEncounter website, to which Rich directs those interested in tick identification and prevention.

Mather described the typical reaction to his inquiring if someone performs a daily tick check: looking at their arms. "They'll say they're doing a daily tick check, but are they really going doing an appropriate tick check? How often do you take your clothes off and look in the mirror at your butt cheeks?" he asked. "They often end up below your belt. They almost all get stuck where your clothing constricts [or] where you have a skin fold," said Mather, who wants people to adopt tick checks as part of their daily hygiene routine.

"Deer ticks require higher humidity in order to survive, but that doesn't translate to where they want to bite you. Once they're biting they don't care if it's humid or not because they're getting moisture from what they're taking in." Mather recommends applying permethrin before going outside and drying clothes for 10-15 minutes before washing them to kill ticks. Repellents like DEET only help briefly, and natural alternatives to DEET and permethrin, Mather said, are useless. "We have spent good money and have tested cedar oil products and have not found them to be one bit effective," said Mather. The Middlesex Tick Task Force recommends creating a mulch or gravel perimeter barrier in the yard to discourage ticks from leaving the moist, shady areas of leaf litter. "There's some pretty good evidence that most people get Lyme disease in their backyards," said Rask.

Ticks remain active any time the temperature is above freezing, Rask warned. "You have to assume that ticks are everywhere," she said. "Everyone should be aware all the time."

She and Rich hope to continue funding the testing program next year as they and Mather continue their crusade to prevent and survey Lyme disease.

"[We're] giving the state a pretty good bang for its buck," Rich said.

*For more information on tick prevention and identification, visit tick-encounter.org. To submit a tick, visit tickreport.com.*

*For community support, join the Metrowest Lyme Support Group at the Concord Free Public Library from 7-9 p.m. on July 24 or Aug. 28.*

*Follow April on Twitter @CrelmConcord.*

## RIDE

From Page A1

friends and colleagues who signed up and the more than \$3,000 the group of eight raised. Marcet and a friend even came out with the route before this past weekend; he was also pleasantly surprised that



## POND

From Page A1

to try to understand the lack of a proper response. I understand the need to be comprehensive but this is a desperate situation," he said, asking for action this season.

The selectmen again voiced their concerns

In addition to discussing illegal swimming and the resulting parking, attendees advocated for the town purchase of a Main Street property in the West Concord neighborhood and an examination of the quorum requirement for Town Meeting.

The board also ran through several liquor