

# Communicable Disease Newsletter

## In this edition:



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## HEAD LICE...WHEN THE CASE BECOMES CHRONIC



Someone in your household has been diagnosed with head lice. You may recognize lice and their eggs (called nits). You know the chemical products that are supposed to kill the lice. You follow the cleaning regimen. And yet, the bugs persist...what can you do?

Unfortunately, lice can not be eliminated with a “magic pill” or even with shampoos or sprays alone. Head lice require you to usually spend hours, not minutes with treatment. We also request families to monitor the situation with daily head checks for several weeks to prevent reinfestation. Why does a reinfestation occur?

According to the latest research findings in the Cochrane Database Systematic Review (Cochrane, 2007), there is no evidence that any one pediculocidal (head lice killing) product (e.g. permethrin, synergized pyrethrin, and malathion) has greater effect than another. Beginning during the 1990's and continuing up until today, there has been an emergence of drug resistance to these products proving them to be increasingly ineffective by anecdotal evidence. We were finding families presenting to the health department after three or four treatments of pediculocidal products echoing this finding. A common complaint would be, “We used the product and the next day we still found live bugs!” This led to improper use/overuse of the products such as leaving the products on longer than the prescribed length of time or repeating the treatment sooner than the recommended 7-10 days. In late 2006, the health department stopped distributing pyrethrin shampoo and began to distribute metal lice combs to those affected by head lice. We were finding that the causes of reinfestation were often from the client's own head, contact with an undetected source, or return to the source of infestation. Often the more households that a child stayed at, the more chance of reinfestation occurring.

The health department participated in a University of Massachusetts study in 2007 where live lice that had been subjected to previous head lice treatments were submitted for examination of altered DNA. Although this study has not been published, the researchers informed us that the lice we submitted were found to have DNA resistance to pediculocides.

Although we still recommend that the initial treatment include use of an over-the-counter pediculocidal product, e.g. permethrin, if there has been previous treatment and nits are still present, the nits may be part of the problem. Many of the treatments kill the adult bugs and some of the nits, but no products are 100% effective in killing all of the nits. When used properly, the effectiveness of the pediculocides has been reported to be 80-95% (MDCH, 2004). The products' mechanism of action is to paralyze the nervous system of the bug and if the nit was recently laid, the nervous system may not be mature enough to be affected at the time of treatment. Since the nits are glued in place to the hair shaft, they are not washed away and may continue to develop and hatch out 7-10 days later and the cycle continues.



Alternative treatments such as tea tree oil, mayonnaise, olive oil have been helpful for some families, especially where health issues or contraindications (previous allergy to the products, asthma or ragweed allergies, pregnancy, or age less than two) are a factor. The process of “bug busting” is popular in Great Britain, where repeated daily conditioner treatment and combing has proven to be less messy than the former treatments. The Cochrane review of physical treatment alone was shown to be ineffective to treat head lice. Studies have shown that combing alone cured 38% of children (MDCH, 2004). There are some other new “non-pesticide” products such as Lice MD which also base their mechanism of action on aiding physical removal of the lice and nits.

## HEAD LICE...WHEN THE CASE BECOMES CHRONIC Cont.

Although there is no “easy fix” for head lice, the Saginaw County Department of Public Health has a current policy/educational standards that follow the Michigan Head Lice Manual guidelines developed in 2004. Initially, we assess each person who presents for head lice evaluation to determine their previous knowledge and to assess for findings on the head. Often there is misdiagnosis with other hair debris (dandruff, hair spray/mousse product) identified as nits. Sometimes the bugs found have been fleas. The head is assessed for the presence of live lice and/or nits within  $\frac{1}{4}$ ” of the scalp. Viable nits (those that are likely to hatch) are usually found at this distance or closer. When nits are found further than  $\frac{1}{4}$ ” from the scalp, it usually indicates evidence of a previous case/dead nits. We assess for history of any past infestation, previous treatment, when head lice was detected, and household members and their ages. All members of the household should be checked at this time. If this is the initial diagnosis of head lice and live lice are present, referral is made to a pharmacy or physician for treatment with a pediculocide. Conditioner treatment is suggested if there is a contraindication or if the client has been treated with pediculocidal product within a week prior to the health department visit. We explain that the conditioner treatment may be repeated as often as needed. Clients diagnosed with head lice are educated in the importance of nit removal. A metal nit comb is provided with education on how to use it. Daily head checks for three weeks after treatment are emphasized. We stress the dangers of repeated pediculocidal treatment and that the treatment should not be repeated unless live lice are found 7-10 days after the first treatment. There is nothing preventative about the treatments. Environmental treatment is required for the household in which the individual has lived in or visited overnight recently. This includes washing linens and clothing in hot water. Items that can't be washed can be vacuumed, placed in a hot dryer for 30 minutes, outside (if below 32 degrees F) or in a freezer overnight. Combs and brushes should be cleaned and soaked in boiling water (temperature hotter than 130 degrees F). The lice and nits can not survive in such extreme temperatures. Items that can't be laundered can also be placed in plastic bags for 10-14 days. It is unnecessary to purchase lice sprays. Vacuuming of carpeted or upholstered surfaces is safer and more effective. The purpose of the environmental cleaning is to remove a live louse or a hair with a viable nit from coming in contact with the affected person's or another member of the family's head. The live bugs can only live for 1-2 days off the human head because they need to feed on blood to stay alive. The nits can survive until they hatch (7-10 days) but then they must find a human head to feed on within 24 hours of hatching or they die as well. So, as much as cleaning the house is an important part, it should not be the most important action taken. We stress that the head is the real environment that needs to be monitored daily.



We encourage families to be lice detectives, both while they are experiencing the problem with head lice, and after the experience. Remembering all the possible contacts and notifying them, continuing the head checks for nits for three weeks and beyond if the child stays at different households, and incorporating preventive health practices in the home and at school are important in getting rid of head lice for good. Prevention practices include avoiding sharing of hair items such as combs, brushes, hair ties, hats, or headphones with others, continuing to do head checks for children who are in school or daycare on a regular basis, and keeping long hair tightly braided or pulled back with use of oils, hair spray, or mousse to decrease the chance of transmission of head-to-head contact.

Learn what to look for and check often! Be smarter than head lice!

### References:

- Cochrane Database Systematic Review. (2007). Retrieved from [www.pubmed.gov](http://www.pubmed.gov) on October 27,2009.
- Michigan Department of Community Health. (2004). *Michigan Head Lice Manual: A Comprehensive Guide to Identify, Treat, Manage, and Prevent Head Lice. Version 1.0.*
- Saginaw County Department of Public Health. (2004). *Getting rid of head lice for good.* (pamphlet)
- Saginaw County Department of Public Health (2007). *Head Lice Teaching Standard.*



## 2009 INFLUENZA A (H1N1) VACCINE UPDATE

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At the onset of nationwide vaccination efforts against the 2009 Influenza A (H1N1) virus, vaccine supply and demand ratios were uncertain. At this time, the Centers for Disease Control and Prevention (CDC) are reporting that the H1N1 vaccine supply is plentiful and as a result, all citizens are encouraged to receive the vaccine.

Currently the vaccine is available as a live attenuated nasal spray and an inactivated injection. It is recommended by the Advisory Committee on Immunization Practices (ACIP) that all citizens 6 months of age or greater receive 1-2 age appropriate doses. This means that children 10 years of age and older **AND** all adults can expect to receive 1 dose of the H1N1 vaccine. Children 6 months **through** 9 years of age will receive 2 age appropriate doses separated by a minimum of 28 days.



The vaccine is offered at the Saginaw County Department of Public Health (SCDPH) during normal immunization clinic hours, which are as follows:

- **Walk-in Clinics**
  - Monday, Tuesday, Friday: 1:30 until 4:00 pm
  - Wednesday: 9 until 11:30 am and 1:30 until 5:00 pm
- **Appointment Clinics**
  - Wednesday: 5:15 until 6:30 pm
  - Thursday: 1:15 until 4 pm

H1N1 vaccination efforts have been such a success due to the abundance of support exhibited by a number of local providers. For a list of vaccine providers in Saginaw County please visit the SCDPH website at [www.saginawpublichealth.org](http://www.saginawpublichealth.org) or the Google Flu Shot finder at [www.google.com/flushot](http://www.google.com/flushot). Questions can be directed to the SCDPH H1N1 information line at (989) 758-3828 or the Immunization Program at (989) 758-3840.

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## ADULT VACCINATION INITIATIVE

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The number of vaccines now available to the adult population has been broadened at the Saginaw County Department of Public Health. The following vaccines are available for \$15 each:

- Td/Tdap
- MMR
- Hepatitis A
- Hepatitis B
- Pneumonia
- Varicella (chickenpox)
- Human Papillomavirus (HPV4)

To qualify, clients must be 19 years of age or older, meet vaccine specific criteria, **AND** be either uninsured (no insurance coverage) or underinsured (have health insurance which does not cover immunization services). For immunization clinic hours or further information, please call (989) 758-3840.

**COMMUNICABLE DISEASE  
REPORTED FOR SAGINAW COUNTY  
01/01/2009 – 12/31/2009**

Disease	No. Reported
ANIMAL BITE	9
BLASTOMYCOSIS	1
CAMPYLOBACTER	14
CHICKENPOX (Varicella)	42
CHLAMYDIA (Genital)	1084
CRYPTOSPORIDIOSIS	2
FLU-LIKE DISEASE	24414
GIARDIASIS	6
GONORRHEA	241
HEPATITIS B ACUTE	1
HEPATITIS B CHRONIC	29
HEPATITIS C ACUTE	3
HEPATITIS C CHRONIC	247
HIV	21
INFLUENZA	27
INFLUENZA, 2009 NOVEL	305
INFLUENZA, NOVEL	3
LEGIONELLOSIS	1
MENINGITIS ASEPTIC	21
MENINGITIS BACTERIAL	1
PERTUSSIS	5
RABIES ANIMAL	1
RHEUMATIC FEVER	1
ROCKY MT SPOTTED FEVER	1
SALMONELLOSIS	6
SHIGELLOSIS	3
SHINGLES	1
STREPTOCOCCAL DISEASE	1
STREPTOCOCCUS	1
SYPHILIS	10
YERSINIA ENTERITIS	1

**COMMUNICABLE DISEASE  
REPORTED FOR SAGINAW COUNTY  
09/1/2009 – 12/31/2009**

Disease	No. Reported
ANIMAL BITE	1
CAMPYLOBACTER	1
CHICKENPOX (Varicella)	15
CHLAMYDIA (Genital)	271
COCCIDIOIDOMYCOSIS	2
CRYPTOSPORIDIOSIS	1
FLU-LIKE DISEASE	11364
GIARDIASIS	2
GONORRHEA	64
HEPATITIS B ACUTE	1
HEPATITIS B CHRONIC	8
HEPATITIS C ACUTE	1
HEPATITIS C CHRONIC	81
HIV	8
INFLUENZA	19
INFLUENZA, 2009 NOVEL	305
MENINGITIS ASEPTIC	14
MENINGITIS BACTERIAL	1
PERTUSSIS	3
SALMONELLOSIS	2
SHINGLES	1
STAPHYLOCOCCUS	2
SYPHILIS	6

This newsletter is provided to all Saginaw county healthcare providers, hospitals, schools, local colleges, universities, urgent care facilities and local media centers.

**If you would like to get this newsletter by e-mail please submit your e-mail address to: [eatkins@saginawcounty.com](mailto:eatkins@saginawcounty.com)**

Articles for this newsletter are written and researched by the following members of the Personal and Preventive Health Services Division: Jayne Heringhausen, R.N., B.S.N., Tawnya Simon, R.N., B.S.N., M.S.A., Susan Gottlieb, R.N., Kemberly Parham, R.N., B.S.N. and John Winden, R.N., B.S.N.

Please visit our website at [www.saginawpublichealth.org](http://www.saginawpublichealth.org) where our communicable disease pamphlets are available.



Saginaw County Department of Public Health  
1600 N. Michigan Ave.  
Saginaw, MI 48602