



COMMUNICABLE DISEASE NEWSLETTER

Our Mission: Our commitment is to protect and promote the public's health and well-being.

Saginaw County Department of Public Health

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TOXIC SHOCK SYNDROME

Toxic shock syndrome (TSS) is a rare, life-threatening illness that is caused by bacterial toxins that circulate in the bloodstream. It was first found in children in 1978. However, most people were not familiar with TSS until an epidemic occurred in 1981 which was linked to women using tampons.

There are actually two different types of TSS. Most cases of TSS are caused by *Staphylococcus aureus*. The most well-known form of Staphylococcal toxic shock syndrome is associated with menstruating women using tampons. Researchers suspect that certain types of high absorbency tampons provide a warm, moist home where the bacterial toxins can thrive. Although this has been a condition linked with women, TSS can occur in men, children, and non-menstruating women. In fact, a third of all cases of TSS occur in men. TSS can affect anyone who has any type of staphylococcal infection, including pneumonia, abscesses or other skin/wound, bone, or blood infection. A second type of TSS is caused by *Streptococcus pyogenes*. Streptococcal toxic shock syndrome often appears after streptococcus bacteria have invaded areas of injured skin e.g cuts, surgical wounds, or burns. It rarely follows a simple case of strep throat, although this is the same causative bacteria.

Symptoms of TSS:

Toxic shock syndrome from staphylococcus starts suddenly with vomiting, high fever (temperature of 102° or greater), a rapid drop in blood pressure, lightheadedness, fainting, watery diarrhea, headache, sore throat, and muscle aches. Within 24 hours, a sunburn-like rash appears. There may also be conjunctivitis or

redness under the eyelids or inside the mouth and petechiae may appear on the skin. Other symptoms of shock may occur which include: confusion; decreased urination; fatigue and weakness; thirst; weak and rapid pulse; pale, cool, moist skin; and rapid breathing.

Streptococcal toxic shock syndrome can happen following a streptococcus infection in the body, most often with a skin infection or an infected wound. Within 48 hours of infection, the person's blood pressure drops and he or she may have fever, dizziness, confusion, difficulty breathing, and a weak and rapid pulse. The skin may be pale, cool, and moist, and there may be a blotchy rash that sometimes peels. The area around infected wound can become swollen, red, and have areas severely damaged or dying flesh. The liver and kidneys may begin to fail, and bleeding problems may develop.

Diagnosis of TSS:

Diagnosis of this condition is usually made through history and physical exam. Blood tests assessing liver and kidney function are also important. Samples of fluid from an abscess, boil, or infected wound may be cultured to look for a possible source of staphylococcal or streptococcal infection.

Treatment of TSS:

Treatment for TSS usually includes antibiotics, IV fluids, and medications to maintain normal blood pressure. People who survive TSS usually improve within 48 hours and can be discharged from the hospital in a week. Less than 5% of patients with TSS caused by *Staphylococcus aureus* die. The form of TSS caused by *Streptococcus pyogenes* is more severe and causes death in about 30% of cases.

Prevention:

Because the causative bacteria for TSS can be found normally on the skin, hand washing is very important. Females can lower their risk of TSS by either avoiding tampons or alternating them with sanitary napkins. If only using tampons, it is important to choose tampons with the lowest absorbency to handle the menstrual flow and change the tampons frequently. It is also important to follow directions for contraceptive devices so that they are inserted appropriately and left in place only as long as recommended for proper birth control. All skin wounds should be cleaned and bandaged as quickly as possible after injury. Medical attention should be sought whenever a wound becomes red, swollen, tender, or if fever occurs with a wound or postoperatively. Repeat episodes occur about 4-6 months after the initial episode in about half of all people who have had TSS so medical follow-up is very important.

References

1. Control of Communicable Diseases Manual 18th Edition 2004. David Heymann, MD, Editor. Pages 506-507
2. www.kidshealth.org/toxicshocksyndrome
3. www.cdc.gov

RINGWORM

Ringworm is a skin infection caused by a fungus. Ringworm can affect skin on your body (tinea corporis), scalp (tinea capitis), groin area (tinea cruris, also called jock itch), or feet (tinea pedis, also called athlete's foot). The disease is not caused by a worm, but a fungal infection.

Ringworm appears as a flat, spreading ring-shaped or circular lesion with a characteristic raised edge around all or part of the lesion. The periphery is usually reddish, vesicular or pustular and may be dry and scaly or moist and crusted. As the lesion progresses peripherally, the central area often clears, leaving apparently normal skin. Often, there are several patches of ringworm on your skin at once. When your scalp or beard is infected, you will have bald patches. If nails are infected, they become discolored, thick or even crumble. Ringworm is a common skin disorder, especially among children, but it may affect people of all ages.

Ringworm is contagious, as long as the fungus remains present in the skin lesion. Ringworm can be passed from one person to the next by direct skin-to-skin contact or by contact with contaminated items such as combs, unwashed clothing and shower or pool surfaces. You can also catch ringworm from pets if they carry the fungus. Cats are common carriers.

The fungi that causes ringworm thrive in warm, moist areas. Ringworm is more likely when you have frequent wetness (such as sweating) and minor injuries to your skin, scalp or nails.

Treatment:

Ringworm usually responds well to self-care within 4 weeks without having to see a health care provider.

- Keep your skin clean and dry.
- Wash sheets and night clothes every day while infected.
- Apply over-the-counter antifungal or drying powders, lotions or creams. Those that contain miconazole, clotrimazole, or similar ingredients are often effective.

A severe or persistent infection may require treatment by a health care provider. Antifungal pills may be given and are necessary if your scalp is infected. Prescription antifungal skin medication, such as ketoconazole, are stronger than over-the-counter products and may be needed. Antibiotics may also be needed to treat related bacterial infections.

Prevention:

- Keep your skin clean and dry.
- Shampoo regularly, especially after haircuts.
- Do not share clothing, towels, hairbrushes, headgear, or other personal items. Such items should be thoroughly cleaned and dried after use.
- Wear sandals or shoes at gyms, lockers, and pool.
- Avoid touching pets with bald spots. Seek veterinary advice for treatment of pets with this condition.

References

1. Medline Plus, Medical Encyclopedia, US National Library Of Medicine and the National Institutes of Health, June 16, 2005.
2. Control of Communicable Diseases Manual, 18th edition 2004 pp 152-156, David L. Heymann, MD, Edition.

COMBING OUT HEAD LICE II **PROJECT REPORT**

Introduction:

In January 2005, the Saginaw County Department of Public Health purchased 333 Licemeister combs from the National Pediculosis Association with funding of \$2000.00 provided by a Saginaw Community Foundation grant. The goal of this project was to reduce the incidence of reported cases of head lice in Saginaw County by 20% through providing affected families with a tool for removal of nits (eggs laid by the louse) along with education on treatment and prevention of lice. Today much data is being collected on the current treatment of head lice. We are becoming more aware of treatment failures with the traditional pediculocidal shampoos and the dangers of pesticide exposure in children. A CDC study in 2005 found that most American children and adults are carrying dozens of pesticides and toxic compounds in their bodies, including pyrethroids. Pyrethroids are found in many household pesticides and also in head lice treatments. Having an effective tool to remove nits and thereby lower the incidence of head lice and need for repeated chemical treatments was the goal of this project.

Activities:

This project was a continuation of a previous project started in January 2003 called Combing Out Head Lice. After evaluation of Phase 1 of this project in January 2004, there was a 32% decrease in reported cases of head lice in Saginaw County. In Combing Out Head Lice Phase II, we again distributed Licemeister combs to families when they presented with head lice. Clients affected initially or with a reinfestation (i.e. treatment failure) of head lice were given instruction in the treatment of head lice and pediculocidal shampoo as indicated. Educational pamphlets were provided along with a Licemeister comb. Clients were taught how to use and clean the comb. They were also given a National Pediculosis Association (NPA) "Critter Card" which had been provided by the NPA when we purchased the combs to aid in the recognition of nits vs. hair debris/dandruff. The clients were given the Community Resource Nurse's business card and asked to provide feedback and follow-up on how this tool had been helpful in the treatment of head lice

and if head lice had reoccurred. Most families reported that this comb along with the educational materials had made a difference in getting rid of a problem that had caused much emotional and financial heartache.

The Saginaw County Department of Public Health notified all school districts in Saginaw County of the availability of the combs and requested collaborative relationships. We worked closely with a number of the schools, both public and private. We also utilized Licemeister combs in treatment of affected families visiting the Rehmann Health Center in Chesaning.

Results:

Head lice continues to be under-reported and it is impossible to know if reduction in total cases in Saginaw County has occurred, but we can look at trends in the incidence of those cases which are reported to the health department. In the Comb Out Head Lice Phase 1 project in January 2004 there was a 32% decrease in the incidence of reported cases of head lice in Saginaw County from 2001-2003. Health Department statistics kept on this disease indicated there were 1083 diagnosed cases of head lice in 2004 and 920 cases reported in 2005. This would indicate a 15% decrease, which is less than the goal of the Phase II project, but does show continued progress with the decreased incidence of head lice.

Follow-up evaluation was done through phone calls and letters received from clients who had received treatment for head lice at the Saginaw County Department of Public Health during 2005. Overall, clients indicated that they were pleased with the Licemeister comb and felt it removed nits better than other combs provided with the shampoo kits. Clients also appreciated the educational information provided at the time of the health department visit.

Conclusion:

The Saginaw County Department of Public Health will continue to educate the public on methods of preventing head lice transmission, the need for frequent head checks, and the appropriate treatment with the thorough removal of nits when head lice are detected.

Reference:

1. "CDC: Americans Full of Chemicals". The Saginaw News. July 22, 2005.

**COMMUNICABLE DISEASE
REPORTED FOR SAGINAW
COUNTY**

10/1/2005 – 12/30/2005

Disease	No. Reported
ANIMAL BITE	3
CHLAMYDIA (GENITAL)	291
CRYPTOSPORIDIOSIS	1
FLU-LIKE DISEASE	7552
GIARDIASIS	3
GONORRHEA	106
HIV	5
HEPATITIS B CHRONIC	2
HEPATITIS C CHRONIC	25
INV STREP PNEUMONIAE	2
KAWASAKI	1
MENINGITIS-ASEPTIC	6
MENINGITIS-BACTERIAL	2
SALMONELLOSIS	11
SHIGELLOSIS	1

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

If you know anyone who would like a copy of this newsletter, or has a topic of interest, contact the Communicable Disease Program at 758-3887.

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

Please visit our website at www.saginawpublichealth.org where our communicable disease pamphlets are available.