SB

30

SENATOR KIM ELTON

MEMORANDUM

DATE: March 1, 2005

TO: Senator Fred Dyson, Chair
Senate HESS Committee

FROM: Senator Kim Elton

SUBJ: Hearing Request for SB 30, an Act relating to immunization of postsecondary students for meningitis; and providing for an effective date.

I respectfully make a second request for a hearing on SB 30, requiring postsecondary educational institutions in Alaska to provide written notice to each student who intends to reside in campus housing with information about meningococcal meningitis. Further, all students who will be attending postsecondary educational institutions in Alaska would be required to sign a document provided by the institution indicating they have received an immunization or a notice that they received the information regarding immunization.

Meningococcal meningitis is a deadly disease which commonly strikes the college-age population. Freshmen students and others living in dormitories are at a higher risk of contracting meningococcal meningitis. Immunization is reported to be between 85 to 100 percent effective in prevention.

Representatives from the University of Alaska don't feel this would be a burden to university operations and stated there would be no extra cost to implement this legislation.

Alaska would join 36 other states that have either pending or enacted similar legislation.

As you may know, HB 185 was introduced yesterday in the House in response to the death of a 20-year-old Alaskan college student this past summer. I ask that you hear SB 30 at your earliest convenience.

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SENATOR KIM ELTON

SB 30
Sponsor Statement

"An Act relating to immunization of postsecondary students for meningitis; and providing for an effective date."

Meningococcal (muh-NIN-jah-kah-kul) meningitis is a rare but potentially fatal bacterial infection. It most commonly attacks the brain and spinal cord or presents as a bacteria in the blood. It can result in permanent brain damage, hearing loss, learning disability, organ failure, loss of limbs or death, often within hours of the first symptoms.

Certain college students have been found to be at risk for meningococcal meningitis. In fact, freshmen living in dormitories are found to be six times more likely to contract this disease. The Centers for Disease Control and Prevention (CDC) recommends college students, particularly freshmen living in dormitories, learn more about meningococcal meningitis and consider vaccination. They also recommend other college students who wish to reduce their risk for the disease also be vaccinated.

SB 30 would require postsecondary educational institutions in Alaska to provide written notice to each student who intends to reside in campus housing with information about meningococcal meningitis. Further, all students who will be attending postsecondary educational institutions in Alaska would be required to sign a document provided by the institution indicating they have received an immunization or a notice that they have received the information regarding immunization.

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Some of the states that have passed or pending legislation regarding Meningococcal Meningitis

Alabama
Introduces vaccination or waiver bills –2004

Arkansas
Meningitis and Vaccination Education Law – 1999

California
Vaccination and Waiver Option Law –2001

Colorado
Vaccination or Signed Waiver Law –2004

Connecticut
Vaccination or Signed Waiver Law –2001

Delaware
Meningitis Education and Waiver Law –2001

Florida
Vaccination or Signed Waiver Law that –2002

Georgia
Vaccination or Signed Waiver Law – 2003

Illinois
Vaccination and Education Law pass–2001

Indiana
Vaccination and Education Law – 2002

Iowa
Vaccination or Signed Waiver Law –2004

Kentucky
Vaccination or Signed Waiver Law –2004

Louisiana
Introduces vaccination or waiver bills –2004

Maine
Vaccination or Signed Waiver Law –2004

Maryland
Vaccination or Signed Waiver Law –2000

Massachusetts
Vaccination or Signed Waiver Law – 2004

Michigan
Vaccination or Signed Waiver Law – 2001

Minnesota
Enacts meningitis education only law –2003

Mississippi
Enacts law on meningitis education –2003

Missouri
Vaccination Bill introduced – 2001

Nebraska
Education and signed waiver law –2003

New Jersey
Vaccination or Signed Waiver Law – 2003

New York
Assembly Bill for Education, Vaccination or Waiver passed

North Carolina
Vaccine and Education Law passed –2003

Ohio
Bills for Vaccination and High School Education – 2004

Oklahoma
Vaccination or waiver law - 2003

Pennsylvania
Vaccination or Signed Waiver Law –2002

South Carolina
Vaccination and Education Law –2002

Tennessee
Enacted vaccination response law –2003

Texas
Meningitis Education for All Families –2001

Vermont
Introduces vaccination or waiver bills –2004

Virginia
Vaccination or Signed Waiver Law –2001

Washington
Vaccination and Education Law – 2003

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Alaska's Current Policies

Institution	Policy
UAA	Currently mails information to students with housing applications. Information is available on the UAA web site. Form requires students to indicate they received information.
UAF	On the UAF Center for Health and Counseling web site, the immunization policy recommends optional immunization for meningococcal meningitis. It also lists that the vaccine is available at the center and may be subject to a fee.
UAS	Nothing mailed out to students, but they believe they give information at freshman orientation. Every time a freshman comes into the nurse's office, she recommends they receive an immunization at their own expense.
Alaska Pacific University	APU's emergency medical and contact information form gives information and recommends immunization for students.
Sheldon Jackson	Does not send out information on any immunizations. As a private college, they are not subject to the requirement to have students provide proof of immunizations. They would be happy to send out information or post it on their health web site.
Division of Public Health	Although meningococcal meningitis is a top emergency priority, the division was concerned about liability of legislation only because public health concern is heightened. There was an outbreak in the mid 1970s but none since 1978. Would be more comfortable with bill if the requirement for a signature was eliminated.

NEW MENINGOCOCCAL IMMUNIZATION RECOMMENDATIONS SEEK TO PROTECT ADOLESCENTS AND COLLEGE STUDENTS FROM POTENTIALLY FATAL MENINGOCOCCAL DISEASE

National Meningitis Association (NMA) Applauds CDC's Advisory Committee on Immunization Practices (ACIP) Recommendation to Immunize Adolescents and College Freshmen against Meningococcal Disease

February 10, 2005

LEXINGTON PARK, Md. - The National Meningitis Association (NMA) applauds the U.S. Centers for Disease Control and Prevention's (CDC) Advisory Committee on Immunization Practices (ACIP) new meningococcal immunization recommendations, issued February 10. The recommendations state young adolescents at the pre-adolescent visit (11-12 year old), adolescents at high school entry (15 year old) and college freshmen living in dormitories should be immunized against meningococcal meningitis. Meningococcal meningitis, caused by the bacterium *Neisseria meningitidis*, is a dangerous, potentially fatal bacterial infection that strikes nearly 3,000 Americans each year.

As parents of children who have died or suffered long-term effects of this disease, NMA regards these new recommendations as an important step towards minimizing the threat of meningococcal disease among adolescents and young adults.

"The NMA believes these new recommendations will help save the lives of teens and college students across the country," said Lynn Bozof, NMA executive director. "Research shows adolescents and young adults are at increased risk for meningococcal disease and more likely to die as a result of the disease than younger children or older adults. Once parents are made aware there is a vaccine to help prevent meningococcal disease –something we at NMA didn't learn until it was too late– we hope they will consider immunization."

In particular, adolescents and young adults are at an increased risk of contracting the disease due to certain lifestyle factors, such as crowded living conditions, move to a new residence, attendance at a new school with students from geographically diverse areas, sharing beverages or utensils, going to bars, active or passive smoking and irregular sleeping patterns.

Immunization is the best method of protection against meningococcal disease. It is believed that up to 80 percent of meningococcal meningitis cases among adolescents and young adults are potentially vaccine-preventable. Adolescents and young adults also should be aware of other ways to reduce their risk of contracting the disease, such as not sharing items that touch a person's mouth like cups, utensils and water bottles.

Meningococcal meningitis, although rare, is devastating because early symptoms resemble the flu, making it difficult to recognize. However unlike the flu, the disease can progress rapidly and within hours of initial symptoms may cause hearing loss, brain damage, limb amputation and even death. Symptoms include high fever, headache, stiff neck, confusion, nausea, vomiting and exhaustion. In later stages, a rash may appear. Adolescents and young adults should seek medical attention immediately if they notice unusually sudden or severe symptoms of the disease.

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About the National Meningitis Association

The National Meningitis Association (NMA) is a nonprofit organization founded by parents of children who have died or suffered long-term effects of meningococcal meningitis. NMA's mission is to educate families, medical professionals and others about bacterial meningitis and prevention approaches to the disease.

For more information about NMA and the organization's activities, or to contact a member of NMA, please call 1-866-FONE-NMA (1-866-366-3662) or visit **www.nmaus.org**.

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MMWR

Recommendations and Reports

June 30, 2000 / 49(RR07);11-20

Meningococcal Disease and College Students

Recommendations of the Advisory Committee on Immunization Practices (ACIP)

Summary

This report provides information regarding the modestly increased risk for meningococcal disease among college freshmen, particularly those who live in dormitories or residence halls. It presents recommendations developed by the Advisory Committee on Immunization Practices regarding the education of students and parents about meningococcal disease and the polysaccharide meningococcal vaccine so that they can make informed decisions regarding vaccination.

INTRODUCTION

Neisseria meningitidis causes both sporadic disease and outbreaks. As a result of the control of *Haemophilus influenzae* type b infections, *N. meningitidis* has become the leading cause of bacterial meningitis in children and young adults in the United States (*1*). Outbreaks of meningococcal disease were rare in the United States in the 1980s; however, since 1991, the frequency of localized outbreaks has increased (*2*). From July 1994 through July 1997, 42 meningococcal outbreaks were reported, four of which occurred at colleges (*3*). However, outbreaks continue to represent <3% of total U.S. cases (3).

Rates of meningococcal disease remain highest for infants, but in the past decade, rates have increased among adolescents and young adults (*4*). During 1994--1998, approximately two thirds of cases among persons aged 18--23 years were caused by serogroups C, Y, or W135 and therefore were potentially preventable with available vaccines (*5*) (CDC, unpublished data) (Figure 1). Although the quadrivalent meningococcal polysaccharide vaccine is safe and efficacious (*5,6*), decisions about who to target for vaccination require understanding of the groups at risk, the burden of disease, and the potential benefits of vaccination.

New data are available regarding the risk for meningococcal disease in college students. This report reviews these data and provides medical professionals with guidelines concerning meningococcal disease and college students.

BACKGROUND

Meningococcal Disease in the Military

Military recruits and college freshmen have several common characteristics (e.g., age, diverse geographic backgrounds, and crowded living conditions). Therefore, data obtained from recruits have been used to evaluate

meningococcal disease and vaccine among college freshmen.

Before 1971, rates of meningococcal disease were elevated among U.S. military recruits. Outbreaks frequently followed large-scale mobilizations, and recruits in their initial training camps were at substantially greater risk for disease than were regular troops (*7*). Military recruits enter military service for the first time at a few large U.S. military recruit training centers. After 8--12 weeks of initial training, they disperse to perform their military service at many different locations. During mobilization for the Vietnam conflict, outbreaks of meningococcal disease at training camps involving substantial numbers of recruits were caused by sulfadiazine-resistant strains of *N. meningitidis*. During 1964--1970, the rate of hospitalizations resulting from meningococcal disease among all active duty service members was 25.2 per 100,000 person- years (LTC Frederick Erdtmann, MD, MPH, Office of the Surgeon General, U.S. Army, briefing, 1981). These circumstances led to development of meningococcal polysaccharide vaccines (*8*). Field trials of group C polysaccharide vaccine among U.S. Army recruits demonstrated an 89.5% reduction in the rate of serogroup C meningococcal disease among vaccinated versus nonvaccinated recruits (*9,10*); thus, beginning in October 1971, all new recruits were vaccinated with the group C vaccine (*11*), and by Fall 1982, all recruits were receiving the quadrivalent polysaccharide vaccine (*7*). However, rates of meningococcal disease in U.S. Army personnel declined before the 1971 vaccination campaigns (*7*), suggesting that smaller recruit populations at training installations and the natural periodicity of outbreaks may have contributed to the decline in disease.

Rates of meningococcal disease remain low in the military, and large outbreaks no longer occur. Since 1990, records of all hospitalizations of active duty service members in military hospitals worldwide have been integrated with military personnel records in the Defense Medical Surveillance System (DMSS). During 1990--1998, the overall rate of hospitalizations from meningococcal disease among enlisted, active-duty service members was 0.51 per 100,000 person-years (J. Brundage, DMSS Army Medical Surveillance Activity, personal communication).

Approximately 180,000 military recruits receive a single dose of quadrivalent polysaccharide meningococcal vaccine annually. Revaccination is only indicated when military personnel are traveling to countries in which *N. meningitidis* is hyperendemic or epidemic (D. Trump, personal communication).

Before 1999, students reporting to two of the U.S. military academies routinely received meningococcal vaccine. Last year, the other academies initiated meningococcal vaccine programs.

MENINGOCOCCAL DISEASE AND COLLEGE STUDENTS

Four recent studies provide data concerning the risk for sporadic meningococcal disease among college students (Table 1) (*12--15*). The earliest of these studies was conducted during the 1990--1991 and 1991--1992 school years. A questionnaire designed to evaluate risk factors for meningococcal disease among college students was sent to 1,900 universities, resulting in a 38% response rate (*12*). Forty-three cases of meningococcal disease were reported during the 2 years from colleges with a total enrollment of 4,393,744 students, for a low overall incidence of 1.0 per 100,000 population per year. However, cases of meningococcal disease occurred 9--23 times more frequently in students residing in dormitories than in those residing in other types of accommodations. The low response rate and the inability of the study to control for other risk factors (e.g., freshman status) make these results difficult to interpret.

In a retrospective, cohort study conducted in Maryland for the period 1992--1997, 67 cases of meningococcal disease among persons aged 1630 years were identified by active, laboratory-based surveillance (*13*). Of those cases, 14 were among students attending Maryland colleges, and 11 were among those in 4-year colleges. The overall incidence of meningococcal disease in Maryland college students was similar to the incidence in the U.S. population of persons the same age (1.74/100,000 vs. 1.44/100,000, respectively); however, rates of disease were elevated among students living in dormitories compared with students living off-campus (3.2/100,000 vs. 0.96/100,000,

p=0.05).

U.S. surveillance for meningococcal disease in college students was initiated in 1998; from September 1998 through August 1999, 90 cases of meningococcal disease were reported to CDC (*14*). These cases represent approximately 3% of the total cases of meningococcal disease that occur each year in the United States. Eighty-seven (97%) cases occurred in undergraduate students, and 40 (44%) occurred among the 2.27 million freshman students entering college each year (*16*). Among undergraduates, of the 71 (82%) isolates for which serogroup information was available, 35 (49%) were serogroup C, 17 (24%) were serogroup B, 15 (21%) were serogroup Y, and one (1%) was serogroup W-135. Eight (9%) students died. Of the five students who died for whom serogroup information was available, four had serogroup C isolates and one had serogroup Y.

U.S. surveillance data from the 1998--1999 school year suggest that the overall rate of meningococcal disease among undergraduate college students is lower than the rate among persons aged 18--23 years who are not enrolled in college (Table 2) (0.7 vs. 1.5/100,000, respectively) (*14,16*). However, rates were higher among specific subgroups of college students. Among the approximately 590,000 freshmen who live in dormitories (*17*), the rate of meningococcal disease was 4.6/100,000, higher than any age group in the population other than children aged <2 years, but lower than the threshold of 10/100,000 recommended for initiating meningococcal vaccination campaigns (*6*).

Of 90 students who had meningococcal disease attending college during the 1998-1999 school year, 50 were enrolled in a case-control study and matched to 148 controls by school, sex, and undergraduate vs. graduate status (*14*). In a multivariable analysis, freshmen living in dormitories were at higher risk for meningococcal disease. In addition, white race, radiator heat, and recent upper respiratory infection were associated with disease.

In contrast to the United States, overall rates of meningococcal disease in the United Kingdom are higher among university students compared with non-students of similar age (*15*). From September 1994 through March 1997, university students had an increased annual rate of meningococcal disease (13.2/100,000) compared with non-students of similar age in the same health districts (5.5/100,000) and in those health districts without universities (3.7/100,000). As in the United States, regression analysis revealed that "catered hall accommodations," the U.K. equivalent of dormitories, were the main risk factor. Higher rates of disease were observed at universities providing catered hall accommodations for >10% of their student population compared with those providing such housing for <10% of students (15.3/100,000 vs. 5.9/100,000). The increased rate of disease among university students has prompted the United Kingdom to initiate routine vaccination of incoming university students with a bivalent A/C polysaccharide vaccine as part of a new vaccination program (see *MMWR* 2000; Vol.49, No. RR-6 which can be referenced in the pages preceding this report) (*18*).

MENINGOCOCCAL VACCINE AND COLLEGE STUDENTS

On September 30, 1997, the American College Health Association (ACHA), which represents about half of colleges that have student health services, released a statement recommending that "college health services [take] a more proactive role in alerting students and their parents about the dangers of meningococcal disease," that "college students consider vaccination against potentially fatal meningococcal disease," and that "colleges and universities ensure all students have access to a vaccination program for those who want to be vaccinated" (Dr. MarJeanne Collins, Chairman, ACHA Vaccine Preventable Diseases Task Force, personal communication). Parent and college student advocates have also encouraged more widespread use of meningococcal vaccine in college students. In a joint study by ACHA and CDC, surveys were sent to 1,200 ACHA-member schools; of 691 responding schools, 57 (8%) reported that pre-exposure meningococcal vaccination campaigns had been conducted on their campus since September 1997. A median of 32 students were vaccinated at each school (range: 1--2,300) (J. Capparella, unpublished data). During the 1998--1999 school year, 3%--5% of 148 students enrolled in a case-control study reported receiving prophylactic meningococcal vaccination (*14*). Before the 1999 fall semester, many schools mailed

information packets to incoming freshmen; data are not yet available regarding the proportion of students who have been vaccinated.

Cost-effectiveness of meningococcal vaccine in college students

From a societal perspective, the economic costs and benefits of vaccinating a) a cohort of 591,587 freshmen who live in dormitories and b) all freshman enrolled in U.S. colleges, regardless of housing status (n=2.4 million) were evaluated, assuming the benefits of vaccination would last 4 years (Scott et al, unpublished data). Best and worst case scenarios were evaluated by varying cost of vaccine and administration (range: $54--$88), costs per hospitalization ($10,924--$24,030), value of premature death based on lifetime productivity ($1.3--$4.8 million), cost of side effects of vaccine per case ($3,500--$12,270 per one million doses), and average cost of treating a case of sequelae ($0--$1,476). Vaccination coverage (60% and 100%) and vaccine efficacy (80% and 90%) were also varied for evaluation purposes.

Vaccination of freshmen who live in dormitories would result in the administration of approximately 300,00--500,000 doses of vaccine each year, preventing 15--30 cases of meningococcal disease and one to three deaths each year. The cost per case prevented would be $600,000--$1.8 million, at a cost per death prevented of $7 million to $20 million.

Vaccination of all freshman would result in the administration of approximately 1.4--2.3 million doses of vaccine each year, preventing 37--69 cases of meningococcal disease and two to four deaths caused by meningococcal disease each year. The cost per case prevented would be $1.4--2.9 million, at a cost per death prevented of $22 million to $48 million.

These data are similar to data derived from previous studies (*19*). They suggest that for society as a whole, vaccination of college students is unlikely to be cost-effective (Scott et al, unpublished data).

RECOMMENDATIONS FOR USE OF MENINGOCOCCAL POLYSACCHARIDE VACCINE IN COLLEGE STUDENTS

College freshmen, particularly those who live in dormitories, are at modestly increased risk for meningococcal disease relative to other persons their age. Vaccination with the currently available quadrivalent meningococcal polysaccharide vaccine will decrease the risk for meningococcal disease among such persons. Vaccination does not eliminate risk because a) the vaccine confers no protection against serogroup B disease and b) although the vaccine is highly effective against serogroups C, Y, W-135, and A, efficacy is <100%.

The risk for meningococcal disease among college students is low; therefore, vaccination of all college students, all freshmen, or only freshmen who live in dormitories or residence halls is not likely to be cost-effective for society as a whole. Thus, ACIP is issuing the following recommendations regarding the use of meningococcal polysaccharide vaccines for college students.

- Providers of medical care to incoming and current college freshmen, particularly those who plan to or already live in dormitories and residence halls, should, during routine medical care, inform these students and their parents about meningococcal disease and the benefits of vaccination. ACIP does not recommend that the level of increased risk among freshmen warrants any specific changes in living situations for freshmen.
- College freshmen who want to reduce their risk for meningococcal disease should either be administered vaccine (by a doctor's office or student health service) or directed to a site where vaccine is available.
- The risk for meningococcal disease among non-freshmen college students is similar to that for the general population. However, the vaccine is safe and efficacious and therefore can be provided to non-freshmen undergraduates who want to reduce their risk for meningococcal disease.

- Colleges should inform incoming and/or current freshmen, particularly those who plan to live or already live in dormitories or residence halls, about meningococcal disease and the availability of a safe and effective vaccine.
- Public health agencies should provide colleges and health-care providers with information about meningococcal disease and the vaccine as well as information regarding how to obtain vaccine.

Additional Considerations about Vaccination of College Students

Although the need for revaccination of older children has not been determined, antibody levels decline rapidly over 2--3 years (*6*). Revaccination may be considered for freshmen who were vaccinated more than 3--5 years earlier (*5*). Routine revaccination of college students who were vaccinated as freshmen is not indicated.

College students who are at higher risk for meningococcal disease because of a) underlying immune deficiencies or b) travel to countries in which *N. meningitidis* is hyperendemic or epidemic (i.e., the meningitis belt of sub-Saharan Africa) should be vaccinated (6). College students who are employed as research, industrial, and clinical laboratory personnel who are routinely exposed to *N. meningitidis* in solutions that may be aerosolized should be considered for vaccination (*6*).

No data are available regarding whether other closed civilian populations with characteristics similar to college freshman living in dormitories (e.g., preparatory school students) are at the same increased risk for disease. Prevention efforts should focus on groups in whom higher risk has been documented.

CONCLUSIONS

College freshmen, especially those who live in dormitories, are at a modestly increased risk for meningococcal disease compared with other persons of the same age, and vaccination with the currently available quadrivalent meningococcal polysaccharide vaccine will decrease their risk for meningococcal disease. Continued surveillance is necessary to evaluate the impact of these recommendations, which have already prompted many universities and clinicians to offer vaccine to college freshmen.

Consultation on the use of these recommendations or other issues regarding meningococcal disease is available from the Meningitis and Special Pathogens Branch, Division of Bacterial and Mycotic Diseases, National Center for Infectious Diseases, CDC (telephone: [404] 639-3158).

Acknowledgement

The following persons are acknowledged for their contributions to the economics section of this report: Martin I. Meltzer, Ph.D. and R. Douglas Scott, II, Ph.D.

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Table 1

Table 1. Studies of the risk for meningococcal disease among college students

	Study A*	Study B†	Study C§	Study D§	Study E¶
Are college students at higher risk than the general population of similar age?	no	no	no	N/A	yes
Among college students, are freshmen at higher risk?	N/A	no	yes	no	N/A
Among college students, are students living in dormitories/ catered halls at higher risk?	yes	yes	yes	no	yes
Among college students, are freshmen living in dormitories at higher risk?	N/A	N/A	yes	yes	N/A

* Froeschle J. Meningococcal disease in college students. Clin Infect Dis 1999;29:215–6.

† Harrison LH, Dwyer DM, Maples CT, Billmann L. Risk of meningococcal infection in college students. JAMA 1999;281:1906–10.

§ Bruce M, Rosenstein NE, Capparella J, Perkins BA, Collins MJ. Meningococcal disease in college students. In: Abstracts of the 39th Annual Meeting of the Infectious Diseases Society of America, Philadelphia, PA, November 18–21, 1999:63.

¶ Neal KR, Nguyen-Van-Tam J, Monk P, O'Brien SJ, Stuart J, Ramsay M. Invasive meningococcal disease among university undergraduates: association with universities providing relatively large amounts of catered hall accomodations. Epidemiol Infect 1999;122:351–7.

N/A= not applicable.

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Figure 1

FIGURE 1. Serogroup distribution of meningococcal disease cases, by age group— United States, 1994–1998

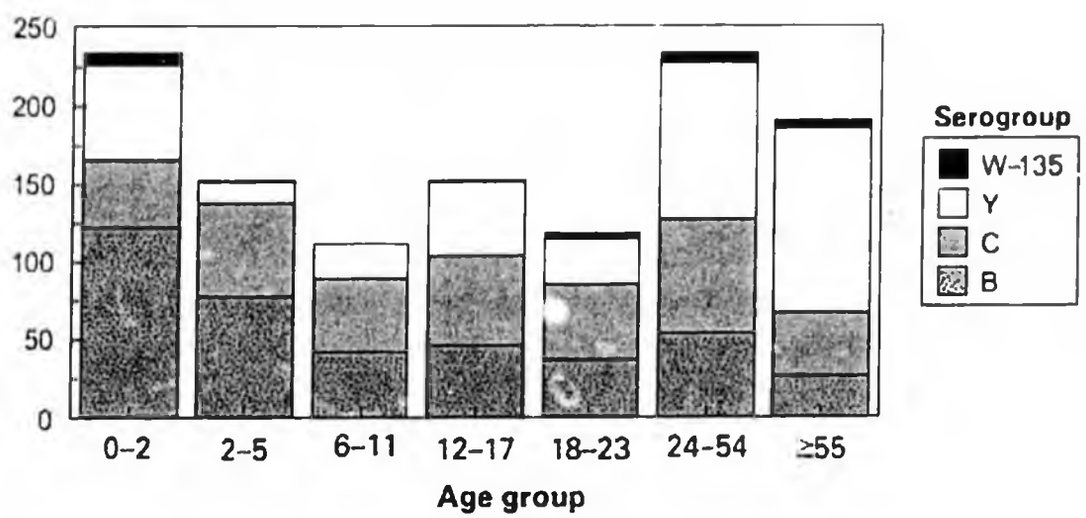

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Table 2

Table 2. Rates of meningococcal disease, by risk group—United States, September 1998–August 1999*

Risk group	Number of cases	Population	Rate per 100,000
Children aged 2–5 years	255	14,886,569†	1.7
Persons aged 18–23 years	304	22,070,535†	1.4
Non-college students aged 18–23 years	216	14,579,322†	1.5
College students	90	14,897,268§	0.6
Undergraduates	87	12,771,228§	0.7
Freshmen¶	40	2,285,001§	1.8
Dormitory residents	45	2,085,618§,**	2.2
Freshmen¶ living in dormitories	27	591,587§,**	4.6

* Bruce M, Rosenstein NE, Capparella J, Perkins BA, Collins MJ. Meningococcal disease in college students. In Abstracts of the 39th Annual Meeting of the Infectious Diseases Society of America, Philadelphia, PA, November 18–21, 1999:63.

† 1998 census data.

§ NCES, U.S. Dept of Education, 1996–1997.

¶ Students enrolled in any postsecondary education for the first time.

** National College Health Risk Behavior Survey (NCHRBS)—United States, 1995.

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Web posted Sunday, August 22, 2004

Earl James 'Ryan' Colton

Obituary

Earl James 'Ryan' Colton

Soldotna resident Earl James "Ryan" Colton died Tuesday, Aug. 17, 2004, at the University of Washington Medical Center in Seattle from Neisseria meningitis. He was 20.

Viewing will be held from 7 to 9 p.m. Tuesday, Aug. 24, at Peninsula Memorial Chapel. Mr. Colton will be cremated following the viewing. A memorial Mass will be held at 7 p.m. Wednesday, Aug. 25, at Our Lady of the Angels Catholic Church in Kenai. Bishop Frances Hurley will celebrate the Mass.

Mr. Colton was born June 18, 1984, in Anchorage. He graduated from Skyview High School in 2002 and attended the University of Alaska Fairbanks.

While in high school, he worked for his dad at Colton Underground Sprinklers and at Kambe Theaters. He most recently worked at Alaska Steel in Kenai.

He was a member of the church, where he was an altar server. He also was on student council during high school. While attending UAF, he was an active member of the Associated Students of Business and a member of the Sigma Phi Epsilon fraternity.

"Ryan had many special qualities that he used to his advantage to make people around him laugh and be happy. His outgoing, creative, upbeat personality had also touched many people throughout the span of his life. He was loved by his family and girlfriend, Rhyme. He is going to be missed so dearly by all family and friends and the many people he had touched throughout his life," his family said.

Mr. Colton is survived by his parents, Michael and Theresa Colton of Soldotna; brothers, Blake and Matthew Colton of Soldotna; grandparents, Dr. Earl and Elsie Colton and of Lakeside, Mont., Mary Colton of Richland, Wash., and James

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and Beverly Pavel of Yuma, Ariz.; uncles and aunts, Melissa and Randy Henry of Arlington, Wash., Dan and Connie Colton of Newman Lake, Wash., Bill and Bonnie Colton of Lake George, Colo., Steve Pavel of Kenewick, Wash., and Randy and Cathy Pavel of Suffield, Conn.; and cousins, Bruce, Crystal, Jessica, Amber, Erin, Katie Jo, Jeremy, Christopher and Cassandra.

Arrangements were made by Peninsula Memorial Chapel.

   

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Web posted Wednesday, January 22, 2003

No forms, no dorms Students without meningitis shots locked out at Penn State

Kathy Krinks, of Penn State University Housing, talks about the university's meningitis vaccination form Jan. 13 in State College, Pa.
AP Photo/Pat Little

By DAN LEWERENZ
Associated Press Writer

STATE COLLEGE, Pa. -- About 300 students were denied access to their dormitories on Penn State University's main campus this week because they didn't comply with a new state law requiring meningitis vaccinations.

The law, passed last summer, requires that students who live on campus be vaccinated or sign a waiver saying they understand the risks and choose not to be vaccinated.

Several other states have similar laws.

The students who were denied access had been told of the requirement several times last semester but didn't return their forms before dorms opened Sunday for the spring semester, said Kathy Krinks, assistant director of assignment operations for Penn State University Housing.

"I don't know -- I guess I just never got around to filling it out," said Zack Hiscock, a freshman who turned in his form Monday afternoon.

Students who didn't turn in their forms on time also were not able to use their student ID cards in dining halls.

Bacterial meningitis, an infection of membranes around the brain and spinal cord, kills in roughly 10 percent of cases and does serious harm, including brain damage, in another 10 percent.

Because crowded dorm conditions can spread the disease, it strikes about 100 college students annually nationwide, according to the U.S. Centers for Disease Control and Prevention.

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Officials weren't sure how many Penn State students filled out the waiver form Monday.

Gary Schwarzmueller, executive director of the Columbus, Ohio-based Association of College and University Housing Officers-International, said he didn't know of any other instances where students were denied access to on-campus housing.

At the University of Connecticut, where students arriving last fall were required to have a meningitis vaccination, students and parents had a year's notice, said Michael Kurland, director of student health services at the university.

But because Pennsylvania's law didn't go into effect until three days after Penn State's dorms had opened for the fall, schools had little time to inform students.

Krinks said only about 5,000 of the 13,000 who live on campus at the main University Park campus had their forms filled out when the fall semester started. When finals ended last month, some 700 had yet to turn in a form.

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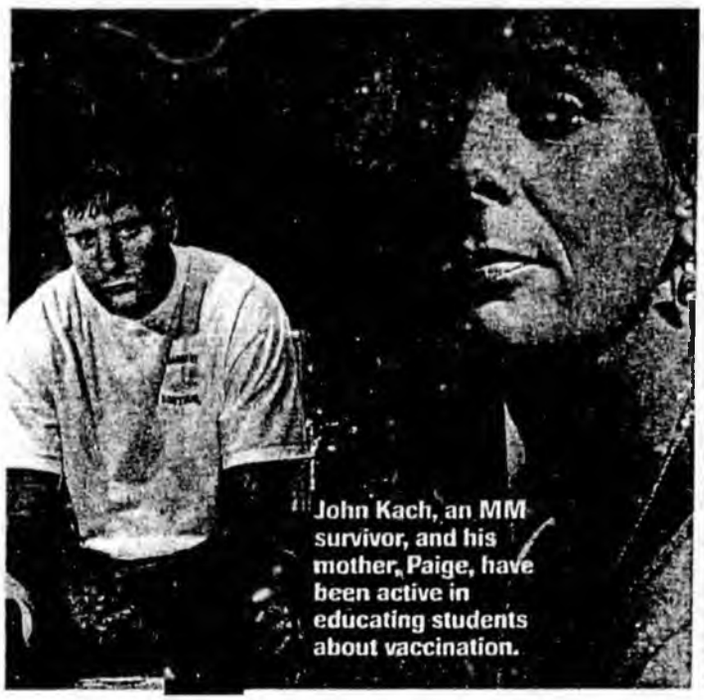
Women Who Make a Difference

By Lisa Collier Cool

Danger in the Dorm

Five mothers band together to get the word out so that no one ever loses another child to meningitis.



John Kach, an MM survivor, and his mother, Paige, have been active in educating students about vaccination.

Judy Miller lost her daughter Beth, 19, to MM in 1999.

It was the most agonizing decision a mother could make. In March 2000 Paige Kach leaned over her 19-year-old son, John, who lay in a medically induced coma hooked up to an array of life-support machines, and gave him permission to die. Not knowing if he could hear her, the 51-year-old building department clerk told him, "If you want to fight, we'll fight this together. Either way, Mommy will understand."

Just three weeks earlier John was a star basketball player at Salve Regina University in Newport, Rhode Island. Then one night the college freshman suddenly got sick with a high fever, flulike symptoms and vomiting. By morning his girlfriend had taken him to the emergency room. Soon after, he broke out in a purple rash and was diagnosed with meningococcal meningitis (MM), a potentially fatal bacterial disease that can cause inflammation of the membranes around the brain and spinal cord, an infection of the blood, or both. The disease can lead to gangrene, organ failure, brain damage, hearing loss or death, often within hours.

Despite massive doses of IV antibiotics, the infection raged through John's body so fast, one ER doctor compared it to watching a house burn down. By the time Paige and her 55-year-old husband, Mike, reached Rhode Island Hospital from their Carmel, New York, home, they were told "he wouldn't make it through the night," says Paige. "I collapsed and said, 'Dear God, no!'" A priest administered last rites as they prayed by their son's side.

Against the odds, John clung to life. "It was devastating to see our beautiful child being eaten away by this disease," says Paige. "He was bleeding from the nose, ears and eyes, and his fingers started dying." Gangrene had set in, forcing doctors to amputate all of his fingers, his right leg below the knee and the toes of his left foot. The 6'4"

Photos: AP/Wide World (top left); John Sibilski (top right)

Melanie Benn survived (with mom and sister, right). Lives lost: Patrick Kepferle getting kiss from mom Deb, below left; Evan Bazof with mom Lynn, below right.

Award-winning author Lisa Collier Cool writes frequently about women's health issues. She lives in Pelham, New York.

> "I can't tell you how much it hurt to know he didn't have to die."

Women Who Make a Difference Continued from page 12

teenager, who normally weighed 210 pounds, dwindled down to barely 100.

As the Kaches stayed by his bedside, they were tormented by guilt. They knew their son might not have fallen ill if he'd gotten a $70 vaccine against MM, a relatively rare disease that annually strikes 5.1 out of 100,000 freshmen in dorms. Why these students are more at risk is not exactly known, says Lee H. Harrison, M.D., head of the infectious diseases epidemiology research unit at the University of Pittsburgh. But lifestyle factors believed to play a possible role are: crowded living conditions, smoking, passive exposure to tobacco smoke and heavy drinking. MM is spread through close contact with an infected person *(see box, page 16)*.

Before John started college, his family received a letter from the university recommending students be immunized. The Kaches' doctor didn't stock the shot, so the couple urged John to be vaccinated at the campus health clinic. Sadly, he never got around to it. "If I had any idea this disease could cause amputations or horrible deaths, I would never have left it up to a nineteen-year-old," says Paige.

Six weeks into his illness, the teenager stabilized enough to let doctors bring him out of the coma. "I freaked out when I found out what I'd lost," says John, who was hospitalized for three months, then spent six more months at Burke Rehabilitation Center in White Plains, New York, where he learned to walk with a prosthetic leg. "Sometimes I'd ask, 'Why me?'" says John. "Then I'd see other people at the rehab hospital who were worse than I was." Using the palms of his hands and the stumps of his fingers, John figured out how to feed and dress himself, write legibly, type on his computer keyboard, and even throw a basketball with close to his old accuracy.

After he recovered, John wanted to warn other kids about meningitis. Accompanied by his parents, he gave several talks at high schools in which he told his story and offered a demonstration of what he had to overcome. "I'd wrap up one of the students' hands in an Ace bandage, then throw him a bag of candy and tell him to open it and pass the candies around. When the kids saw how hard it was to do without fingers, it opened their eyes to what this disease is all about," he says. "The biggest thing was to tell them about the vaccine, because I wanted to save a life." He and his parents also gave over 100 interviews to newspapers, radio and TV shows, and appeared in a TV documentary about John's illness.

In March 2001 Paige got a call from a publicist for the Meningitis Foundation of America, a nonprofit education and support group for people affected by meningitis. The publicist, who had read about the Kaches, invited her to join four other women—all of whom had college-aged children who either died of MM or were left seriously disabled—to form an advocacy group called Moms on Meningitis (MOMs). Their mission was to publicize the benefits of vaccinating college students through a national campaign targeted at parents.

Founders of the advocacy group Moms on Meningitis (MOMs), *left to right:* Lynn Bozof, Candie Benn, Paige Kach, Deb Kepferle and Judy Miller.

A month later the five women held an emotional meeting in Atlanta. "We needed a big tissue box when we shared our stories, because everyone cried and cried," says Deb Kepferle, a 52-year-old stay-at-home mom from Lexington Park, Maryland. In a heartbreaking coincidence, Deb's son had caught meningitis within days of Paige's. Two of the moms, Lynn Bozof and Judy Miller, had children die of the disease in the spring of other years. (Rates are highest in late winter and early spring.) The fifth mom, Candie Benn, had a daughter who survived but suffered amputations.

Like the Kaches, Deb and her husband tried to get their 18-year-old son, Patrick, vaccinated before he left for Towson University near Baltimore, only to find their doctor didn't have the shot. Then, less than 24 hours after the Kepferles drove Patrick back to his dorm after a visit home, they got an urgent call: Their son was in the emergency room. By the time Deb and her husband arrived two hours later, Patrick was on life support. "Fifteen minutes later he was gone," she says. "It was that quick and deadly. We were in such shock that our minds could hardly even accept what we were being told. We went into the room with a priest and sat there for a long time, praying. Over 1,000 people came to the wake and funeral." It wasn't until an autopsy was performed that a diagnosis was made: meningococcal meningitis.

What's Your State Law?

So far 25 states have adopted laws that either require colleges to educate students and parents about MM vaccination or mandate vaccination unless parents sign a waiver. Here's a state-by-state breakdown, compiled by the National Meningitis Association (www.nmaus.org).

States that require colleges to educate: Arkansas, Illinois, Michigan, Minnesota, Mississippi, Nebraska, New Jersey, South Carolina, Texas, Washington.

States that mandate vaccination unless a waiver is signed: California, Connecticut, Delaware, Florida, Georgia, Indiana, Maryland, Missouri, New York, North Carolina, Oklahoma, Pennsylvania, Tennessee, Virginia, Wisconsin.

States considering vaccination legislation: Alabama, Massachusetts, Ohio, New Jersey.

Women Who Make a Difference Continued from page 15

Deb and her husband, Michael, a 49-year-old retired naval officer, immediately had their other three children immunized. Their tragedy pushed Maryland legislators to pass a law making it mandatory for college students to be vaccinated. Michael traveled to other states considering similar laws and testified about what happened to his son. He also wrote a brochure about the importance of vaccination. "We want people to know it can happen to their child," Deb says. The family keeps Patrick's memory alive through a college scholarship they've funded in his name. His fraternity also holds a fund-raiser and candlelight vigil yearly on his behalf.

Soon after the first MOMs meeting, Lynn Bozof, Michael Kepferle and Candie Benn started a nonprofit educational foundation called the National Meningitis Association. It is financed by private donations, fund-raisers and grants from Aventis Pasteur, the maker of the MM vaccine. Through the foundation over a million copies of Michael Kepferle's vaccination brochure have been distributed. Lynn serves as its executive director.

Lynn and her husband, Alan, both 53-year-old engineers from Marietta, Georgia, lost their son Evan, a junior at Georgia Southwestern State University, in April 1998 after a nightmarish 26-day battle in which he suffered lung, kidney and liver failure, gangrene and irreversible brain damage. After his death Lynn called the Centers for Disease Control and Prevention to learn more about the disease. "That's when I found out that there's a vaccine," she says. "I can't tell you how much it hurt to know that he didn't have to die."

In 1999 Lynn testified before the CDC—which had just done a study showing a rise in MM among freshman college students—and was joined by 26-year-old meningitis survivor Melanie Benn, whose mother, Candie, belongs to MOMs. Melanie described her harrowing medical ordeal, which began on Christmas Eve in 1995, when she developed meningitis. Despite prompt medical care the 18-year-old freshman lost both arms below the elbow and her legs from the knee down. She was so determined to complete her education that a week after completing rehab, she went back to college and ultimately received both an undergraduate and master's degree in social work. Along with helping her mom raise awareness of MM, she has become an excellent swimmer and won a silver medal in the 2000 U.S. Paralympics.

Soon after Lynn and Melanie testified, the CDC issued a recommendation that college health services educate students and their parents about vaccination. Although the CDC didn't make the shots mandatory, it did have a huge impact: Most colleges started offering the vaccine on campus and added meningitis information to the packets they sent to incoming freshman. Lynn also began holding annual vaccination days at local high schools in which she shows a video about MM, and at a later date a nurse is available to give shots. "This year we got over 300 kids vaccinated, which was wonderful," she says.

Another of the MOMs, Judy Miller of Coal City, Illinois, started an immunization program in her county after her 19-year-old daughter, Beth, died in March 1999. "After we said our last good-byes and were literally walking out the door, a doctor told us about the vaccine," says Judy, a 50-year-old Tupperware manager. "It was heartbreaking." She established the Beth Ann Miller Health Foundation, which is financed through fund-raisers. In addition to raising awareness, the foundation donates money to the county health department to pay for meningitis shots for any student in the county whose parents can't afford the fee.

Along with their individual activities, the MOMs get together for group projects. Each August they film public service announcements to send to families of kids getting ready for college. They also share their stories through a "satellite tour," in which they record in a studio interviews to be broadcast on TV shows across the nation. They've seen heartening progress: Twenty-five states now mandate vaccination or require colleges to distribute information.

Paige was thrilled that her home state, New York, passed a law in July 2003 that she and her son John helped lobby for. It requires students who attend colleges, boarding schools and sleep-away camps to be vaccinated. "The law will definitely save lives, because this is a preventable disease," says Paige. "I wish everyone knew that, so no one will ever lose another child." **FC**

How to Protect Your Family

What is meningococcal meningitis (MM)? "It's the leading cause of bacterial meningitis in teenagers and young adults," reports James Turner, M.D., executive director, department of student health at the University of Virginia in Charlottesville. MM can infect the brain's lining (the meninges). If it spreads to the bloodstream, it is known as meningococcemia. 35-40% of cases present with meningitis only, 35-40% present with meningococcemia only, and 10-20% present with both.

How is MM transmitted? "The disease is spread either by close contact with infected people such as kissing or sharing food, drinks or cigarettes; or by bacteria that get in the air when someone with the disease coughs or sneezes," says Dr. Turner. "About 10 to 20 percent of Americans carry meningococcal meningitis bacteria in their nose or throat and can infect other people, but don't get sick themselves."

How many people get MM? "It strikes 1,600 to 2,500 Americans a year, with about 600 of these cases among teens and young adults," says Dr. Turner. The disease causes death in up to 13 percent of cases, and 20 percent of survivors are left with lifelong impairments, such as amputated limbs, hearing loss or brain damage.

What are the symptoms? Early warning signs include fever, sensitivity to light, nausea, vomiting, headache, stiff neck and altered mental status, says Lee H. Harrison, M.D., head of the infectious diseases epidemiology research unit at the University of Pittsburgh. "In the early stages it can be confused with flu. However, within a few hours—at most a day or two—a red or purple rash can also appear."

Getting immediate medical help is crucial, cautions Dr. Harrison. "The infection progresses extremely rapidly, and shock, organ failure or death can occur within hours of the onset of symptoms." MM is treated with antibiotics.

How safe and effective is the vaccine? "The shot is 90 percent effective against four of the five main types of MM bacteria," says Dr. Harrison. "It has been used for over 30 years, is safe and lasts for three to five years."

The CDC recommends colleges make students aware of the risk of disease and availability of the vaccine. For children going to sleep-away camp, consult your pediatrician to see if vaccination is recommended.

The Seattle Times
seattletimes.com

Friday, July 09, 2004, 12:00 a.m. Pacific

Bacterial meningitis suspected in Bothell boy's death

By Sara Jean Green
Seattle Times staff reporter

Bacterial meningitis is suspected in the death of a Bothell teen Wednesday afternoon, two days after he showed symptoms of the disease.

The boy, believed to be 15, was an incoming sophomore at Bothell High School and recently attended an Eastern Washington football camp and football training sessions at Bothell High, with dozens of other teens.

"We're trying to establish where he was, what he did and what potential exposures there may have been," said state Department of Health spokesman Donn Moyer. Officials have recommended preventive medical treatment for a handful of people who were in close contact with the boy, he said.

As of late last night, officials with the King County Medical Examiner's Office had not released the boy's name or cause of death.

Still, Moyer said state and county health officials are working under the assumption he died from bacterial meningitis.

The state health department and Public Health — Seattle & King County have launched independent investigations into how the boy may have contracted the disease, which is known to progress quickly, Moyer said. But there is no general threat to the public, he said, explaining that bacterial meningitis can't be spread simply by being in the same room with an infected person.

Soon after Northshore School District officials learned of the boy's death, they phoned 136 students who attended a football training session at Bothell High Monday, said district spokeswoman Pamela Steele. Wednesday night, about 110 people attended a meeting with health and school officials there, she said.

"Everybody's just kind of numb, speechless," she said. "It's unbelievable how quickly something like that can happen."

Steele said the boy attended a football camp at Eastern Washington University (EWU) June 26-30. Because symptoms of bacterial meningitis often appear within days of exposure, health officials alerted their counterparts in Eastern Washington, she said. Bothell High was one of nine teams that attended the Eagle Football Team and Individual Football Camp at EWU in Cheney, said Dave Cook, the university's sports information director. Cook said he and other athletic staff were told by King County health officials the boy likely was infected before coming to the camp. "We were told he didn't contract it at Eastern, but probably earlier," Cook said.

The boy later attended the Bothell High School training camp Monday and started feeling sick that night, Steele said. "Things progressed very rapidly, and he died [Wednesday] afternoon."

Custodians at the high school were instructed to do extra cleaning, especially of drinking fountains in the weight room where most of the football players spent time, Steele said.

Meningitis, both bacterial and viral strains, has harmed other local athletes: A freshman basketball player at LaConner High School was diagnosed with bacterial meningitis last season s. An outbreak of viral meningitis hospitalized 16 Mount Vernon High School football players last September.

Times assistant sports editor Don Shelton and Times news partner KING-5 contributed to this report. Sara Jean Green: 206-515-5654 or sgreen@seattletimes.com

The Seattle Times
seattletimes.com

Saturday, July 10, 2004, 12:00 a.m. Pacific

Teen athlete mourned

By Young Chang and Nick Perry
Seattle Times Eastside bureau

Andrew "Drew" Albrecht was a fearsome athlete. But he also had a gentle side. He could sense when a friend needed to talk, he gave the best gifts and was chummy with his dad.

"He used to come home every day and tell me about the bruises with a big smile," said his father, Ron Albrecht, who was wearing a "Bothell Football" T-shirt yesterday as he tearfully remembered his son.

Drew Albrecht, 15, died Wednesday at Evergreen Hospital Medical Center in Kirkland from what health officials say was bacterial meningitis. Shocked friends and family are still trying to make sense of the death of a teen they remember as a top athlete, talented student and humorous friend.

Albrecht felt OK until Monday, his father said. Then he came home after a weight-lifting session with the Bothell High School football team complaining of a pounding headache that was so intense it felt like his head was "exploding."

"It was in less than 24 hours, and that's what makes this disease so hard," Ron Albrecht said. "It can creep up on you, and you don't even know it."

Yesterday morning, about 40 students from the football team met at the high school for a regular 90-minute weight-lifting session.

Coach Tom Bainter said he considered canceling but was told by school counselors that the kids may take comfort from continuing their routine and being around one another.

Ron Albrecht arrived to thank students for their messages of support. Many students continued quietly lifting weights while some sought comfort from two counselors in attendance, the coach said.

"The kids all mourn in different ways," Bainter said. "The message was that we will get through this together."

Bainter said Albrecht was a "real hard worker" who was always positive and upbeat. "He was one of those people that are fun to be around."

Albrecht's determination shone through last year at Skyview Junior High when he broke his leg during the first football game of the season, said his friend James Orrell, 15.

He sat out the remaining games, but was soon back to his starring role with his school basketball team, which has gone undefeated the past two years. He also returned to wrestling and playing baseball, Orrell said.

About a month ago, he began lifting weights with the Bothell High football — A right tackle, he was to play with the sophomore team when he began classes in the fall.

Albrecht never let his success at sports go to his head, Orrell said. He continued mixing with a wide variety of people and was friendly toward "anyone who wanted to be his friend."

Despite being too young to get his driver's license, Albrecht was also keenly interested in mechanics and spent a lot of time with his two older brothers fixing and restoring cars, Orrell said.

Orrell remembers how Albrecht once helped him and his mom move to a new house over an entire week.

Another time Albrecht, knowing his father's love of chess, made a chess board for him at school. In another school project, Albrecht made a floor plan of a house and enjoyed the process so much that he decided his future lay in architecture.

Distraught friends have already set up a memorial Web site.

"I can't face the fact that I'm not going to be seeing you roaming around school being the cool kid that you are," wrote one. "You were such a good friend. And an AWESOME guy. You always made me laugh. It was hard not to have fun when people are around you."

Orrell said that when his friend was hospitalized, Orrell was convinced his physical strength and positive attitude would pull him through. He was so shocked when he heard Albrecht died that he contacted the teen's sister and the hospital to make sure.

"He was healthy on Monday, he was lifting weights with his friends," Orrell said. "Then by Wednesday he was just gone."

King County medical examiners expect to announce the boy's cause of death as early as today.

Albrecht had recently attended an Eastern Washington University football camp in Cheney.

After learning of Albrecht's death, Northshore School District officials notified 136 students who were at practice at Bothell High with him Monday.

At least a dozen of his friends are taking a course of antibiotics and are being monitored by health officials, said Dave Neubert, communications coordinator for the school district.

Friends and family yesterday were searching for a venue big enough to hold Albrecht's many admirers. They've decided to hold a memorial service at 1 p.m. July 17 at Maltby Christian Assembly, 9322 Paradise Lake Road in Snohomish.

A memorial fund is set up in Drew Albrecht's name at the Bothell branch of Banner Bank.

"I have a hole in my heart now and always will," said Ron Albrecht.

Young Chang: 206-748-5815

Nick Perry: 206-515-5639 or nperry@seattletimes.com

DallasNews.com
The Dallas Morning News

Protecting the student body

06:54 PM CDT on Monday, July 26, 2004

By SHERRY JACOBSON / The Dallas Morning News

As a sophomore at the University of North Texas, Lydia Evans helped incoming freshmen adjust to the swirl of campus life. One of her tasks was to warn them of something she hadn't heard in her first year – the risk of being infected with bacterial meningitis, especially if they lived in the dorms.

And then weeks later, that same illness nearly took her life. In September 2001, she lost both her legs below the knee, as well as portions of nine fingers.

And today she's working harder than ever to urge other college students to get vaccinated against meningococcal meningitis before they head to campus.

"It's something that's so easily prevented," she says.

Since 1991, studies have documented dozens of outbreaks of meningococcal disease, including those on college campuses involving students who live in dormitories. The incidence was relatively small, but the studies persuaded the federal government's Advisory Committee on Immunization Practices to recommend in 1999 that college freshmen be vaccinated against meningococcal disease if they intend to live in dormitories or residence halls.

The U.S. Centers for Disease Control and Prevention reports about 2,600 cases of the disease in the United States every year, about 125 of them in college students. Between five and 15 of the students die, while 12 to 20 suffer permanent hearing loss, brain damage or loss of limbs.

"We watched our son die, and we couldn't do a thing for him," said Lynn Bozof, whose 20-year-old son, Evan, died after a meningococcal infection six years ago. He was a junior at Georgia Southwestern University in Americus.

"We do not want that to happen to other families when there is a vaccine to prevent it," she said. "It's the best gift you can give a child before he goes off to college."

Mrs. Bozof and her husband, Alan, helped found the National Meningitis Association four years ago to alert college students and their parents to the threat of meningococcal disease. The families have lobbied Congress and various state legislatures to require better education efforts that result in more college students' being vaccinated.

Only two states, Connecticut and New Jersey, now require that college students be vaccinated against the bacteria that cause meningitis. However, a number of

MENINGITIS RISKS

• Meningitis, one of several forms of meningococcal disease, is an infection of the brain and spinal cord coverings.

• About 2,600 people get meningococcal disease each year in the United States. About one out of every 10 people who get the disease dies from it, and many others are affected for life, losing their arms or legs, becoming deaf, having nervous system problems, becoming mentally retarded or suffering seizures or strokes.

• Anyone can get meningococcal disease, but it is most common in infants less than 1 year of age, international travelers and people with certain medical conditions.

• College freshmen, particularly those who live in dormitories, have a slightly increased risk of getting meningococcal disease.

universities require such protection.

About 30 states, including Texas, require or suggest that colleges inform incoming students of the possibility of infection by meningococcal bacteria as well as the availability of a vaccine to prevent it. The states allow students to weigh what is known about the disease and decide whether they want protection.

Bacterial villain

Meningococcal disease is caused by bacteria called Neisseria meningitidis, which live in the noses and throats of about 15 percent of the population. The bacteria become dangerous only when they invade the central nervous system and bloodstream, causing an infection that can be rapidly fatal. Researchers don't yet know what causes the usually benign bacteria to become so deadly.

Meningitis symptoms can include headache, high fever, stiff neck, nausea, vomiting, discomfort looking into bright light, confusion and sleepiness.

Crowded living conditions seem to be a contributing factor in the spread of the infection. But it's not as contagious as a common cold. It can be spread from an infected person by coughing, kissing or the sharing of drinking glasses and silverware.

"There is something about the close living quarters in a dormitory that makes students in that setting more likely to be infected with this type of bacteria," said Dr. David Buhner, medical director of the Dallas County health department. "These cases are rare, but they also can be prevented."

County health officials investigated 19 cases of meningitis caused by meningococcal infections last year. Most of them involved infants, whose young immune systems are not as well developed to withstand such an infection.

"The current vaccination is not recommended for younger children," notes Dr. Jane Siegel, a pediatrician at Children's Medical Center Dallas who also serves as a nonvoting member of the national committee that sets vaccination policy.

She is a strong proponent for vaccinating college freshmen, she says.

"I gave it to my kids when they went off to college," she says. "And I would certainly encourage and recommend that all college freshmen get it."

A newer and longer-lasting vaccine to prevent meningococcal meningitis may be available within a year, Dr. Siegel adds. It will be reviewed at the November meeting of the Advisory Committee on Immunizations.

After Lydia Evans was stricken almost three years ago, there was "pretty heightened awareness" of meningococcal disease on the UNT campus, said Reginald Bond, executive director of the school's Student Health and Wellness Services. Hundreds of students were given antibiotics if they had had any contact with her when she became ill. Other students sought vaccinations.

Last year, about 500 students responded to various educational efforts to be vaccinated against meningococcal disease

MENINGOCOCCAL VACCINE

Meningococcal vaccine is not routinely recommended for most people. People who should get the vaccine include:

• U.S. military recruits

• People who might be affected during an outbreak of certain types of meningococcal disease

• Anyone traveling to, or living in, a part of the world where meningococcal disease is common, such as West Africa

• Anyone who has a damaged spleen or whose spleen has been removed

• Anyone who has terminal complement component deficiency (an immune system disorder)

• College students can choose to be vaccinated. College freshmen, especially those who live in dormitories, and their parents should discuss the risks and benefits of vaccination with their health-care providers.

Sherry Jacobson

by the health service, which charges $95 a shot. Mr. Bond said students are given enough information about the disease to decide whether to be immunized.

Costly vaccine

"We explain during freshman orientation about the dangers of the disease and the efficacy of the vaccine," Mr. Bond said. "But it's a pretty expensive vaccine, so parents and students have to make their own decision."

The vaccine, which lasts three or four years, protects against four of the five common strains of meningococcal meningitis. About 10 percent of bacterial meningitis cases are fatal.

And survival depends upon how quickly a victim gets medical attention and how quickly a diagnosis is made and antibiotics are dispensed.

"My son called home, complaining of a migraine headache, and I told him what to do because migraines run in my husband's family," recalls Mrs. Bozof, whose son was stricken in spring 1998. "When he got to the emergency room, the doctors missed it. They thought it was a little virus until he was covered with a purple rash. He died 26 days later."

In Lydia Evans' case, she began feeling nauseated one morning in September of her sophomore year at UNT. That she was stricken was unusual not only for the fact that she wasn't a freshman, but that she was living in a sorority house, not a larger, congested dormitory. She thought she was not at risk.

Initially, she fended off her friends' efforts to get her medical help, she says.

"I threw up 17 times before I let them take me to the hospital," recalls Ms. Evans, now 22. "I had a 105 fever, and I couldn't stand up when we got there 12 hours later. And I was covered with little purple spots. I had no idea what it was."

She was treated with antibiotics and transferred by helicopter to Presbyterian Hospital of Dallas, where she remained in a coma for two weeks. At one point, her family and sorority sisters planned her funeral.

"They told us there was less than a 3 percent chance that she would make it," says her mother, Elizabeth Evans, who lives in Fort Worth. "They told us to say goodbye to her, and we did."

But after two weeks in a coma, Ms. Evans says, she awoke and was stunned to learn what she had gone though. Her liver and kidneys had nearly failed, her lungs had collapsed and her feet and hands were blackened from lack of circulation, she says.

"I was shocked when they told me what it was," she recalls. "But I never figured out how I got infected."

A grueling recovery

It took nearly two dozen surgeries and months of rehabilitation, but Ms. Evans returned to UNT the next fall, walking on prosthetic legs and able to type and write with shortened fingers. Both of her thumbs had been surgically rebuilt.

The soon-to-be senior, who is majoring in international relations and political science, was changed in other ways, too.

She switched her career plans from becoming a lawyer to being a lobbyist for people with disabilities. She has also set up a foundation called Strides for Awareness, which is raising money to cover the cost of vaccinations for incoming UNT students. Last spring, the group raised $3,000 in a 5K run. This summer, she is interning with the Washington,

D.C., office of the Landmine Survivors Network, an advocacy group for the removal of land mines around the globe and for the rights of people injured by them.

"Now I understand what it's like for people who are disabled," Ms. Evans says. "But I don't think of myself as disabled. I go to school, I date and I do whatever a normal college student does. I just get a better parking spot."

E-mail sjacobson@dallasnews.com

WHERE TO GET VACCINATED

Dallas County Department of Health and Human Services, 2377 N. Stemmons Freeway. Hours:

8 a.m.-4 p.m., Monday-Friday. Cost is $110. 214-819-2162.

Collin County Health Care Services, 825 N. McDonald, McKinney. Hours: 8-11 a.m. and 1-4 p.m. Monday-Friday. Cost is $85. Bring your immunization record. 972-548-5500.

FOR MORE INFORMATION

• Ask your doctor

• Call the U.S. Centers for Disease Control and Prevention (CDC):

1-800-232-2522 (English)

1-800-232-0233 (Español)

• Visit the National Immunization Program's Web site at www.cdc.gov/nip

• Visit the National Center for Infectious Disease's meningococcal disease Web site at www.cdc.gov/ncidod/dbmd /diseaseinfo/meningococcal _g.htm

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Online at: http://www.dallasnews.com/sharedcontent/dws/fea/healthyliving/stories/072704dnlivmeningitis.1fc41.html

MENINGOCOCCAL VACCINE

WHAT YOU NEED TO KNOW

1 What is meningococcal disease?

Meningococcal disease is a serious illness, caused by a bacteria. It is the leading cause of bacterial meningitis in children 2-18 years old in the United States. Meningitis is an infection of the brain and spinal cord coverings. Meningococcal disease can also cause blood infections.

About 2,600 people get meningococcal disease each year in the U.S. 10-15% of these people die, in spite of treatment with antibiotics. Of those who live, another 10% lose their arms or legs, become deaf, have problems with their nervous systems, become mentally retarded, or suffer seizures or strokes.

Anyone can get meningococcal disease. But it is most common in infants less than one year of age, international travelers, and people with certain medical conditions. College freshmen, particularly those who live in dormitories, have a slightly increased risk of getting meningococcal disease.

Meningococcal vaccine can prevent 4 types of meningococcal disease. These include 2 of the 3 types most common in the United States and a type which is the main cause of epidemics in Africa. Meningococcal vaccine cannot prevent all types of the disease. But it does help to protect many people who might become sick if they don't get the vaccine.

Drugs such as penicillin can be used to treat meningococcal infection. Still, about 1 out of every ten people who get the disease dies from it, and many others are affected for life. This is why it is important that people with the highest risk for meningococcal disease get the vaccine.

2 Who should get meningococcal vaccine and when?

Meningococcal vaccine is not routinely recommended for most people. People who *should* get the vaccine include:

- U.S. Military recruits
- People who might be affected during an outbreak of certain types of meningococcal disease.
- Anyone traveling to, or living in, a part of the world where meningococcal disease is common, such as West Africa.
- Anyone who has a damaged spleen, or whose spleen has been removed.
- Anyone who has terminal complement component deficiency (an immune system disorder).

The vaccine should also be *considered* for:

- Some laboratory workers who are routinely exposed to the meningococcal bacteria.

The vaccine may also be given to college students who choose to be vaccinated. College freshmen, especially those who live in dormitories, and their parents should discuss the risks and benefits of vaccination with their health care providers.

Meningococcal vaccine is usually not recommended for children under two years of age. But under special circumstances it may be given to infants as young as 3 months (the vaccine does not work as well in very young children). Ask your health care provider for details.

How many doses?

✓ For people 2 years of age and over: 1 dose (Sometimes an additional dose is recommended for people who continue to be at high risk. Ask your provider.)

✓ For children 3 months to 2 years of age who need the vaccine: 2 doses, 3 months apart

3 Some people should not get meningococcal vaccine or should wait

People should not get meningococcal vaccine if they have ever had a serious allergic reaction to a previous dose of the vaccine.

People who are mildly ill at the time the shot is scheduled can still get meningococcal vaccine. People with moderate or severe illnesses should usually wait until they recover. Your provider can advise you.

Meningococcal vaccine may be given to pregnant women.

4 What are the risks from meningococcal vaccine?

A vaccine, like any medicine, is capable of causing serious problems, such as severe allergic reactions. The risk of the meningococcal vaccine causing serious harm, or death, is extremely small.

Getting meningococcal vaccine is much safer than getting the disease.

Mild problems

Some people who get meningococcal vaccine have mild side effects, such as redness or pain where the shot was given. These symptoms usually last for 1-2 days.

A small percentage of people who receive the vaccine develop a fever.

5 What if there is a serious reaction?

What should I look for?

Look for any unusual condition, such as a severe allergic reaction, high fever, or unusual behavior. If a serious allergic reaction occurred, it would happen within a few minutes to a few hours after the shot. Signs of a serious allergic reaction can include difficulty breathing, weakness, hoarseness or wheezing, a fast heart beat, hives, dizziness, paleness, or swelling of the throat.

What should I do?

- Call a doctor, or get the person to a doctor right away.
- Tell your doctor what happened, the date and time it happened, and when the vaccination was given.
- Ask your health care provider to file a Vaccine Adverse Events Reporting System (VAERS) form. Or call VAERS yourself at 1-800-822-7967 or visit their website at **www.vaers.org**.

6 How can I learn more?

- Ask your doctor or nurse. They can give you the vaccine package insert or suggest other sources of information.
- Call your local or state health department's immunization program.
- Contact the Centers for Disease Control and Prevention (CDC):
  - Call **1-800-232-2522** (English)
  - Call **1-800-232-0233** (Español)
  - Visit the National Immunization Program's website at **www.cdc.gov/nip**
  - Visit the National Center for Infectious Disease's meningococcal disease website at **www.cdc.gov/ncidod/dbmd/diseaseinfo/meningococcal_g.htm**
  - Visit CDC's Travelers Health website at **www.cdc.gov/travel**

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Disease Control and Prevention
National Immunization Program

Meningococcal Meningitis

Possible to Prevent. Dangerous to Ignore.

There is a rare but sometimes deadly disease, called meningococcal meningitis, that strikes college students.

The disease spreads quickly and within hours of the first symptoms can cause organ failure, brain damage, amputations of limbs, or death.

Parents and students should learn more about meningococcal meningitis and consider immunization. Vaccination can prevent most cases of disease on college campuses.

Talk to Your Doctor About Meningitis Vaccination

- Parents and students are encouraged to learn more about meningococcal meningitis and to talk to a physician about immunization.

National Meningitis Association

The National Meningitis Association (NMA) is a nonprofit organization founded to inform families, medical professionals, and others about the dangers of meningococcal meningitis and methods of prevention.

Its mission is to help ensure every child is offered protection from the disease through vaccination programs; to support research and development of improved meningitis vaccines and treatments for people stricken by meningitis; and to provide support to survivors of meningococcal meningitis and meningococcemia and their families.

For more information about NMA and its activities, or to contact a member of NMA, please call 1-866-FONE-NMA (1-866-366-3662) or visit www.nmaus.org.

NMA

National Meningitis Association
22910 Chestnut Road
Lexington Park, MD 20653
1-866-FONE-NMA
www.nmaus.org

Meningitis on Campus

Don't Wait. Vaccinate.

What Parents and Students Need to Know.

NMA

Facts About Meningococcal Meningitis

- College students, particularly freshmen living in dormitories, have a higher risk of getting this contagious disease.
- Each year, the disease strikes about 2,500 Americans and 10 to 15 percent of them will die.
- Up to 20 percent of survivors have long-term disabilities, such as brain damage, hearing loss, or limb amputations.
- The disease can take one of two forms: swelling of the membranes that surround the brain and spinal cord, or the more deadly meningococcemia, an infection of the blood.
- Meningococcal meningitis is caused by bacteria called *Neisseria meningitidis*.

College Students at Special Risk

Overall, cases of this disease among adolescents and young adults have increased by nearly 60 percent since the early 1990s.

Lifestyle factors common among college students seem to be linked to the disease: crowded living situations such as dormitories, going to bars, smoking, and irregular sleep habits.

Freshmen living in dormitories are up to six times more likely to get the disease than other people.

Be Alert: Early Flu-Like Symptoms

Meningococcal meningitis is often misdiagnosed because its early signs are much like those of the flu or migraines. Symptoms may include high fever, headache, stiff neck, confusion, nausea, vomiting, and exhaustion.

Later, after the disease has taken hold, a rash may appear. If any of these symptoms are present and are unusually sudden and severe, call a physician or the college student health center. Don't wait.

How Meningitis Is Spread

The disease is spread through air droplets and direct contact with someone who's infected. That includes: coughing, kissing, and sharing cigarettes, utensils, cups, or lip balm – anything an infected person touches with his or her mouth.

Students can reduce their risk by considering vaccination and/or by not sharing certain things: utensils, beverages, cigarettes, etc.

Most cases occur in late winter or early spring when college students are away at school.

Consider Vaccination

Immunization can prevent up to 80 percent of meningococcal meningitis cases in adolescents and young adults:

- The vaccine is safe and effective against four of the five types of the bacteria responsible for meningococcal meningitis in the United States — and for the majority of cases in the college-age population.
- Protection lasts approximately three to five years, the length of time most students are away at college.
- As with all vaccines, there may be minor reactions (pain and redness at the injection site or a mild fever).

College Student Immunization Recommendations

The Centers for Disease Control and Prevention, American College Health Association, and American Academy of Pediatrics recommend that:

- College students and their parents should be told about the risk of meningococcal meningitis and the benefits of immunization.
- The vaccine should be made available to students who ask to be immunized.

Find Out More

For more information about meningococcal meningitis and the vaccine that can help prevent it, visit the following web sites:

- National Meningitis Association, www.nmaus.org
- Meningitis Foundation of America, www.musa.org
- American College Health Association, www.acha.org
- Centers for Disease Control and Prevention, www.cdc.gov

For medical advice about the meningococcal vaccine, consult your physician, college health service, or local public health department.

Meningitis Foundation of America

Top 20 Questions About Meningitis

Top 20 Questions About Meningitis

1. What exactly in meningitis?
Meningitis is inflammation of the meninges, the lining which surrounds the brain. The disease should not be confused with encephalitis which is inflammation of the brain itself. Click here for more details.

2. How many types of meningitis are there?
Essentially, there are two distinct types of meningitis; aseptic (usually caused by viral infections) and bacterial. Bacterial meningitis, while it is comparatively rare, is by far the most dangerous and is sometimes fatal. As such, it gets the most media attention, but the Foundation is acutely aware of the effects of the more common viral meningitis. Most of the current vaccine efforts are directed toward preventing bacterial meningitis cases, since these so often lead to death or disability in survivors.

3. Just how common is each type?
There are not exact figures available on a month-to-month basis. The figures published by the CDC for ???? show a total of ????? cases of bacterial meningitis reported to them. Meningitis is fatal in about 10% of cases. Viral meningitis is much more common but it is impossible to quote accurate figures because many mild cases may not even be reported by the sufferer to his/her doctor, and testing is much less accurate in identifying the specific cause of these cases of meningitis.

4. What causes Meningitis?
The bacteria which cause bacterial meningitis live in the back of the nose and throat region and are carried at any given time by between 10% and 25% of the population. It causes meningitis when it gets into the bloodstream and travels to the meninges. What triggers this movement in a small number of unfortunate people remains the subject of research. With viral meningitis, the viruses responsible can be picked up through poor hygiene or polluted water

5. How are the bacteria and virus spread?
Both are spread by coughing, sneezing and kissing but they should not be regarded as either water-borne or air-borne. It is a mistake to assume that the viruses and bacteria can be blown in the wind and float in water because they CANNOT live for very long outside the human body. Also see question 4 above.

6. Can anyone get meningitis?
Yes, although research shows that certain age groups are more susceptible than others. These are the under 5's, the 16-25's and the over-55's.

7. Is meningitis seasonal?
Either form can occur at ANY time but elsewhere in the world there is a pattern which shows that bacterial meningitis occurs more in the winter months (November-March inclusive) while viral meningitis sees most cases occurring during the summer months.

8. What are the after effects of meningitis?
With both forms there will be a wide variation in exactly how the disease affects a sufferer in the long term. Tiredness, recurring headaches, short-term memory difficulties and concentration problems are often reported, as are temper tantrums, forgetting recently-learned skills and babyish behavior in children.

Mood swings, aggression, balance problems and clumsiness can all make daily life difficult both for the sufferer and his/her family and friends but these should pass in time.

Deafness (permanent or temporary) is a more serious outcome, while epilepsy/seizures, sight problems and brain damage have been known but are relatively rare.

9. What are the main symptoms?
Again, with both forms there is a wide range which can onset in different 'combinations'. In adults and older children vomiting, high temperature, severe headaches, neck stiffness, a dislike of bright lights, drowsiness, other joint pains and fits may be present. In babies and infants watch for fever with hands and feet feeling cold, vomiting, refusing feeds, high pitched crying, a dislike of handling, neck retraction, a staring expression, difficulty in waking and a pale or blotchy complexion.

10. Isn't there a rash to watch for too?
Yes, and it is VERY important. It can occur in anyone of ANY age and can begin on ANY part of the body. It looks like small clusters of tiny pin pricks at the beginning, which can quickly develop into areas of skin damage. They are purple in color and will NOT turn white when pressed.

11. Why is the rash so important?
The development of the rash in the way described in question 10 is a key indicator of septicemia (blood poisoning). If it is seen, it is ABSOLUTELY VITAL that the sufferer is taken to the nearest ER WITHOUT DELAY. Septicemia develops when the bacterium which causes meningitis multiples while it is in the bloodstream and if not treated quickly can be fatal or mean the loss of limbs or fingers/toes.

12. Do all the symptoms appear at once?
No. Some will appear while others may not appear at all. This can cause difficulties in diagnosing meningitis, complicated by the fact that many symptoms are like the common cold. However, over and above the symptoms themselves, it will become obvious to anyone close to the sufferer that he/she is becoming VERY ill VERY quickly.

13. What should I do if I see anyone showing these symptoms?
Act quickly. Firstly, describe the symptoms as accurately as possible

to the doctor. If you cannot reach him/her or if they cannot come immediately, get the person to the nearest ER and be prepared to insist on immediate attention.

14. Wouldn't it be quicker to by-pass the family doctor?
We believe this is not advisable unless he cannot attend immediately. Diagnosing the form of meningitis is complicated and the family doctor is best person able to advise the right course of action. These days, he/she is much more likely to carry a supply of benzyl penicillin which can be administered to the sufferer immediately. This action can "buy valuable time" and should the case turn out to be the bacterial form, could make a major difference. Should the case ultimately turn out to be the viral form, no harm will have been done.

15. Is it true there are different types of bacterial meningitis?
Yes, they are called strains and there are several worth mentioning; meningococcal, pneumococcal, Hib, TB and neonatal meningitis. TB and neonatal are very rare, and Hib (which almost exclusively affects under 4's) has become rarer since the introduction of a vaccine for all under 4's. More information on all these forms is available on this sit

16. So meningococcal and pneumococcal are the most common strains?
Yes, pneumococcal meningitis tends to affect children, older people and anyone who has already had a chronic illness such as heart disease, liver disease or diabetes. Meningococcal is the most common strain and can be further sub-divided into three groups, commonly referred to as A, B, C.

17. What is the position on available vaccines?
Firstly, as stated above, the Hib vaccine has been successfully introduced but it is important to point out that it is ONLY effective against the Hib strain. The under 4's REMAIN SUSCEPTIBLE to all the other strains. Currently there is one vaccine which combats both Group A and C meningococcal meningitis but it is not very effective in young children and of limited effectiveness in adults. There is no vaccine against the most common strain B.

18. What of the future of vaccines?
It is universally agreed that vaccine development is the route to take in fighting meningitis. Some new vaccines are currently being tested and the scientific community remains hopeful that further studies will be made in the next several years. While this research is highly complex, technological advances continue to be made.

19. Why do people fear meningitis?
Because of the number of cases and the fact that very little has been explained to the public. Until the Meningitis Foundation of America began in 1997, the US had no national organization working in this area offering advice and support to the general public.

We believe that the public and opinion-formers, such as the media, will become more aware of the facts in the months ahead. These are that meningitis cases are normally isolated and unconnected and

that speed is of the essence if the disease is suspected.

20. What would be your final message concerning meningitis?
When fighting meningitis there are two sides involved; human beings who are by nature are all different and viruses/bacteria which are the most ancient organisms about which we have much to learn. As such, it is impossible to draft "golden rules" about any aspect of the disease. The only certainty is that there are - and will remain - many committed people, working internationally, who are devoted to its ultimate eradication and support for those who have suffered from it.

SENATOR KIM ELTON

MEMORANDUM

DATE: January 27, 2005

TO: Senator Fred Dyson, Chair
Senate HESS Committee

FROM: Senator Kim Elton

SUBJ: Hearing Request for SB 30, an Act relating to immunization of postsecondary students for meningitis; and providing for an effective date.

I respectfully request a hearing for SB 30, requiring postsecondary educational institutions in Alaska to provide written notice to each student who intends to reside in campus housing with information about meningococcal meningitis. Further, all students who will be attending postsecondary educational institutions in Alaska would be required to sign a document provided by the institution indicating they have received an immunization or a notice that they have received the information regarding immunization.

Meningococcal meningitis is a deadly disease which commonly strikes the college-age population. Freshmen students and others living in dormitories are at a higher risk of contracting meningococcal meningitis. Immunization is reported to be between 85 to 100 percent effective in prevention.

Representatives from the University of Alaska don't feel this would be a burden to university operations and stated there would be no extra cost to implement this legislation.

Alaska would join 36 other states that have either pending or enacted similar legislation.

I ask that you hear SB 30 at your earliest convenience.

ALASKA SENATE
STATE CAPITOL • JUNEAU, ALASKA 99801-1182 • (907) 465-4947 • FAX (907) 465-2108
SENATOR_KIM_ELTON@LEGIS.STATE.AK.US

SENATOR KIM ELTON

SB 30
Sponsor Statement

"An Act relating to immunization of postsecondary students for meningitis; and providing for an effective date."

Meningococcal (muh-NIN-jah-kah-kul) meningitis is a rare but potentially fatal bacterial infection. It most commonly attacks the brain and spinal cord or presents as a bacteria in the blood. It can result in permanent brain damage, hearing loss, learning disability, organ failure, loss of limbs or death, often within hours of the first symptoms.

Certain college students have been found to be at risk for meningococcal meningitis. In fact, freshmen living in dormitories are found to be six times more likely to contract this disease. The Centers for Disease Control and Prevention (CDC) recommends college students, particularly freshmen living in dormitories, learn more about meningococcal meningitis and consider vaccination. They also recommend other college students who wish to reduce their risk for the disease also be vaccinated.

SB 30 would require postsecondary educational institutions in Alaska to provide written notice to each student who intends to reside in campus housing with information about meningococcal meningitis. Further, all students who will be attending postsecondary educational institutions in Alaska would be required to sign a document provided by the institution indicating they have received an immunization or a notice that they have received the information regarding immunization.

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