

## RECOMMENDED VACCINATIONS

The following vaccinations are recommended (but not required) for Macalester College students:

|                           |  |
|---------------------------|--|
| Meningitis                | Chicken Pox (varicella)                                  |
| Hepatitis B – series of 3 | HPV (human papilloma virus) – series of 3 for women only |
| DTaP (pertussis)          |  |

### Meningitis

The US Center for Disease Control and Prevention's Advisory Committee on Immunization Practices (ACIP) and the American College Health Association (ACHA) recommends that all college students living in residence halls consider being vaccinated against meningitis with a new vaccine called *Menactra*.

#### About Meningitis:

Meningococcal disease strikes 1,400 to 3,000 Americans each year and is responsible for approximately 150 to 300 deaths. One in five of those who survive will suffer from long term side effects such as brain damage, seizures, hearing loss, limb amputation, and kidney failure. Adolescents and young adults account for nearly 30% of all cases of meningitis in the United States.

Due to lifestyle factors such as crowded living situations, bar patronage, active or passive smoking, irregular sleep patterns, and sharing of personal items, college students living in residence halls are at higher risk for the disease.

The bacteria are transmitted through the air via droplets of respiratory secretions and direct contact with persons infected with the disease. Oral contact with shared items such as cigarettes or drinking glasses or through intimate contact such as kissing could put a person at risk for acquiring the infection. The disease usually peaks in late winter and early spring which is also the timing of the flu season. Meningitis starts out with similar symptoms and can easily be misdiagnosed as the flu. If not treated early, the disease can progress rapidly to shock and death.

Menactra provides immunity against four of the five most common types of meningitis, A, C, Y and W-135. Please talk with your health care provider about getting vaccinated for meningitis before you come to Macalester College. *The vaccine is offered at Macalester – charges will apply.*

If you would like further information on this vaccination, the following websites may be helpful:

[www.acha.org/meningitis](http://www.acha.org/meningitis)

[www.cdc.gov/ncidod/diseases/submenu/sub\\_meningitis.htm](http://www.cdc.gov/ncidod/diseases/submenu/sub_meningitis.htm)

### Varicella (Chickenpox)

Chickenpox is a very contagious disease caused by a virus. Adolescents and adults can become infected if they have not had chickenpox or been vaccinated for it. Chickenpox can be more serious when individuals get the infection after childhood. Even in mild cases, students would be out of classes and activities for a minimum of one week, which would cause problems during busy academic times. Complications of chickenpox include pneumonia, encephalitis (inflammation of the brain), or a severe bacterial infection. Each year in the US, 11,000 unvaccinated people are hospitalized and up to 100 people die from complications of chickenpox.

The chickenpox (varicella) vaccine is the best way to prevent chickenpox and its complications. All persons who have not had chickenpox should be vaccinated. Immunity is especially important for the following groups:

- Persons who live or work in places such as colleges, correctional institutions and those in the military
- Persons who live or work with young children such as in day care settings, hospitals or clinics
- All non-pregnant women of childbearing age (women must avoid pregnancy for 1 month following vaccination)
- Adolescents and adults living in households with children
- International travelers

The vaccination for those over the age of 13 is a series of 2 shots given four weeks apart. Please talk with your health care provider about getting this important immunization before coming to Macalester. *This immunization is not available at Macalester Health Services.*

For more information, the following links are helpful- [www.cdc.gov/nip/vaccine/varicella/faqs-gen-vaccine.htm](http://www.cdc.gov/nip/vaccine/varicella/faqs-gen-vaccine.htm) or [www.mayoclinic.com/health/chickenpox/DS00053](http://www.mayoclinic.com/health/chickenpox/DS00053)

#### 2008-09 Macalester Charges for Immunizations (2009-10 TBD)

**HPV** - \$170.00 per injection (series of 3 required)

**Meningitis** – \$115.00

**Hepatitis B** - \$45.00 per adult dose injection (series of 3 required)

**Varicella** – not available at Macalester

**DTaP** - \$46.00

## Hepatitis A, B, and C

Hepatitis, or inflammation of the liver may be caused by alcohol, medicine or other chemicals, or by viruses, including Hepatitis viruses A, B, and C.

Symptoms may be similar to “flu” with loss of appetite, fatigue, nausea and vomiting, diarrhea, and sore muscles and joints. There may also be tenderness in the liver area in the upper right part of the abdomen. Jaundice or abnormally yellow skin/ eyes, dark colored urine, and pale or grey stools may appear.

**Hepatitis A** - is contracted by ingestion of contaminated food or beverages, or by having intimate contact with an infected person. Hepatitis A may also be transmitted by sharing needles.

Symptoms appear 2-6 weeks after exposure, are most often mild, though can be serious, but rarely fatal. It does not do permanent liver damage.

Good personal hygiene, washing hands often and avoiding potentially contaminated food can help prevent Hepatitis A. When traveling in developing areas drink only boiled water or bottled water, do not use ice, and do not eat raw vegetables unless peeled.

*There is a vaccine to prevent Hepatitis A (not available at Macalester Health Services), and a post exposure treatment.*

**Hepatitis B** - is a rapidly spreading sexually transmitted disease contracted by any behavior in which mucous membranes are exposed to an infected persons blood, semen, vaginal secretions, or saliva. It is also spread by sharing needles. Initially the infection may be mild, and is rarely fatal, but 10% of those infected become chronic and can develop serious and potentially fatal complications like cirrhosis or liver cancer.

If symptoms occur, they appear in 1-6 months, but the person can begin infecting others 4-6 weeks before symptoms appear, and may continue infecting others long after symptoms subside.

Risk behaviors include practicing unsafe sex, sharing needles, and close frequent contact with body fluids of an infected person.

*Hepatitis B can be prevented by a series of 3 vaccinations. If one is exposed, a health professional can give Hep B immune globulin and begin the 3 vaccination series.*

**Hepatitis C** - while not common, is increasing. It is spread by sharing needles and by contact with infected body fluids. Only about 25% of those infected have initial symptoms, but half of those develop chronic liver disease. Risk factors for Hepatitis C are the same as Hepatitis B, sharing needles, unsafe sex practices, or contact with infected body fluids. *There is currently no vaccine for Hepatitis C.*

## HPV (human papilloma virus)

HPV or human papilloma virus is an infection which causes cervical cancer and genital warts. The virus causes 1 million new infections every year in the US. Research has shown that four types of HPV cause 70% of cervical cancers and 90% of genital warts.

These four viral types are included in a vaccination called *Gardasil*, which is virtually 100% effective. The vaccination is given in a series of 3 shots over a six month period of time.

Ask your healthcare provider about starting this vaccination series before coming to Macalester. If you would like to get any of these shots at Macalester Health Services, please let us know in advance, as the vaccination must be ordered ahead of time. The second vaccination is given 2 months after the first, and the third vaccination 4 months or more after the second.

For further information, the following website may be helpful: [www.cdc.gov/std/hpv](http://www.cdc.gov/std/hpv)

## Pertussis

Pertussis (whooping cough) is a very contagious disease caused by a type of bacteria called *Bordetella pertussis*. This is one of the most common vaccine-preventable childhood diseases in the U.S. It's important to remember that both children and adults can get pertussis. Since the 1980s, there's been a dramatic increase in the number of cases of pertussis, especially among teens (10–19 years of age) and babies less than 5 months of age. In 2005, there were more than 25,000 total reported cases.

**The best way to prevent pertussis is to get vaccinated. In the U.S., the recommended pertussis vaccine for children is called DTaP. This is a safe and effective combination vaccine that protects against three diseases: pertussis, diphtheria, and tetanus. For maximum protection against pertussis, children need five DTaP shots. The first three shots are given at 2, 4, and 6 months of age. The fourth shot is given between 15 and 18 months, and a fifth shot is given when a child enters school, at 4–6 years of age.**

Students are encouraged to get a Tdap instead of their next regular diphtheria tetanus booster. The dose of Tdap can be given earlier than the 10-year mark, so it's a good idea for you to talk to a healthcare provider about what's best for your specific situation.

<http://www.cdc.gov/Features/Pertussis/>

For more information on these vaccines or other services and resources provided by Macalester College Health & Wellness Center, visit our web site at:

<http://www.macalester.edu/health>