# **Meningococcal Disease and Vaccination**

# What is Meningococcal Disease?

- Meningococcal disease is a rare but serious infection caused by a
  type of bacteria called *Neisseria meningitidis*. It can present as
  meningitis (infection of the fluid and lining around the brain and
  spinal cord) and infection of the blood (bacteremia or septicemia).
- Most of the meningocoocal disease is caused by a few types of bacteria called serogroups **A**, **B**, **C**, **Y** and **W**.
- Anyone can get meningococcal disease, but certain people are at increased risk
- Meningococcal disease can be difficult to diagnose because the signs and symptoms are often similar to those of other illnesses.
- Meningococcal disease is treated with antibiotics. Antibiotics help
  reduce the risk of dying. However, even with antibiotic treatment, some people with
  meningococcal disease will die, and some of the survivors will have long-term disabilities, such
  as loss of limb(s), deafness, nervous system problems, or brain damage.
- Meningococcal disease Incidence (by age):
  - O **Highest incidence** in children under 5 years of age, with infants under 1 year at greatest risk.
  - O Second peak in adolescents and young adults 16 to 21 years old
  - o Third peak in adults 65 years old and older
  - Meningococcal Disease symptoms: fever, aches, chills, and headache. Young children
    may be irritable or sleepy, refuse to eat or have fever with cold hands and feet.
    Meningococcal disease can quickly become very serious.

# What Types of Meningococcal Vaccines Are There?

- Meningococcal ACWY Vaccines can help protect against meningococcal disease caused by meningococci A, C, W, and Y
- Meningococcal B Vaccines can help protect against meningococcal disease caused by bacteria serogroup B



# Who Should Get Meningococcal Vaccines?

 CDC recommends vaccination with meningococcal conjugate vaccine for all preteens and teens between 11 and 18 years of age. In certain situations, other children and adults could be recommended to get meningococcal vaccines.

For More Information please visit CDC Website: https://www.cdc.gov/meningococcal/index.html

• To help improve their own condition or gain better access to treatment

Advances in medicine couldn't happen without the active involvement of researchers energized and motivated by the spirit of discovery. Such progress couldn't happen without the active involvement of people of all ages, including children and their parents, energized and motivated by the opportunity to make a lasting contribution—to their own health and the health of others.



#### References:

- Getz K. The Gift of Participation: A Guide to Making Informed Decisions About Volunteering for a Clinical Trial. 2nd Edition. Boston, MA; The Center for Information and Study on Clinical Research Participation. 2014.
- 2. National Institutes of Health. NIH Clinical Research Trials and You. Why Should I Participate in a Clinical Trial? <a href="http://www.nih.gov/health/clinicaltrials/whyparticipate.htm">http://www.nih.gov/health/clinicaltrials/whyparticipate.htm</a>. Accessed June 22, 2018.
- 3. The Importance of Children in Clinical Studies. (2018). Retrieved from http://www.childrenandclinicalstudies.org/ Accessed June 22 2018.

## Other Helpful Resources

Center for Information and Study on Clinical Research Participation (CISCRP). http://www.ciscrp.com.

CenterWatch. http://www.centerwatch.com.

http://www.childrenandclinicalstudies.org/



# **Children and Research Opportunities**

Every new drug to treat a disease, every true advance in medicine couldn't happen without the participation of volunteers in clinical trials.

No matter how exciting a scientific discovery may be, it cannot reach people who might benefit from a new therapy or a novel approach to disease treatment or prevention, until it has been thoroughly tested by investigators. And it can't be tested without the help of people like you.

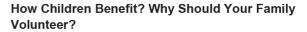
The federal government requires that new treatments be thoroughly evaluated in clinical trials in order to demonstrate that they are both safe and effective for the individuals who will ultimately use them.

### Why Involve Children in Research?

- 70% of the time medicines have only been tested in adults
- The simple truth is...children are not little adults
- Without research involving children, all treatments would be based on data from adults, which may not actually depict responses in children

### Why Are Clinical Studies Important?

- Discover the best dose of medicines to prevent harmful effects or under-treatment in children
- Determine child appropriate delivery methods (chewable, liquid, or tablet)
- Lead to treatments for diseases or conditions that occur in both children and adults but that act differently in children and adults, like arthritis or heart disease
- Results from clinical studies lead to new treatments that might improve the health of children.
   Vaccines which have been developed years ago and are routinely used today help prevent childhood infectious diseases which have been common in the past. For example, the widespread polio vaccination has led to the elimination of polio in the US.



- Helping Future Generations through the advancement of medical science
- Having Access to New Drugs, Treatments or Vaccines not yet available
  - Gaining access to closer medical monitoring



