Central Health

# Immunizations
# What you need to know

Communicable Disease Control

March 2014

Central Health

# Overview of Presentation

- Benefits of Immunization
- Risk of Not Immunizing
- Immunity
- Vaccines
- Vaccine Safety
- NL Immunization Schedule

# Benefits of Immunization

- Immunization is one of the most important advances in public health and is estimated to have saved more lives in Canada over the past 50 years than any other health intervention

# Benefits of Immunization

- Better to prevent a disease than to treat it
- Vaccines have prevented countless cases of infectious disease and saved millions of lives

Polio

# Benefits of Immunization

- Individuals build up immunity without having to suffer from the illness and run the risk of having long term complications associated with certain diseases
- Many illnesses can turn deadly

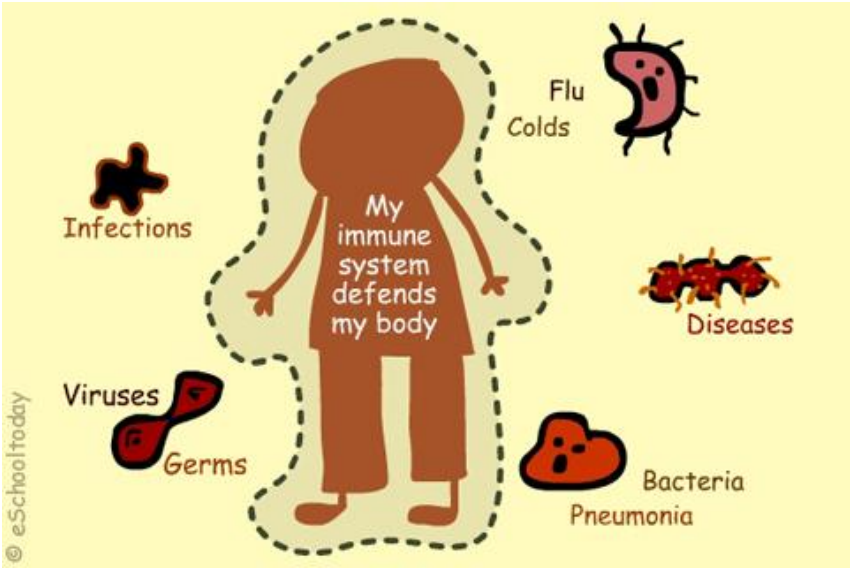
Rubella

# Benefits of Immunization

| | Annual Pre-Vaccine Cases in Canada | Annual Post-Vaccine Cases in Canada |
|---|---|---|
| **Polio** | 2000 | 0 |
| **Diphtheria** | 12,000 cases with 1,000 deaths | 0-5 cases with 0 deaths |

# What is Immunity?

- The Immune system is composed of cells, organs and fluid located throughout the body



# What is Immunity?

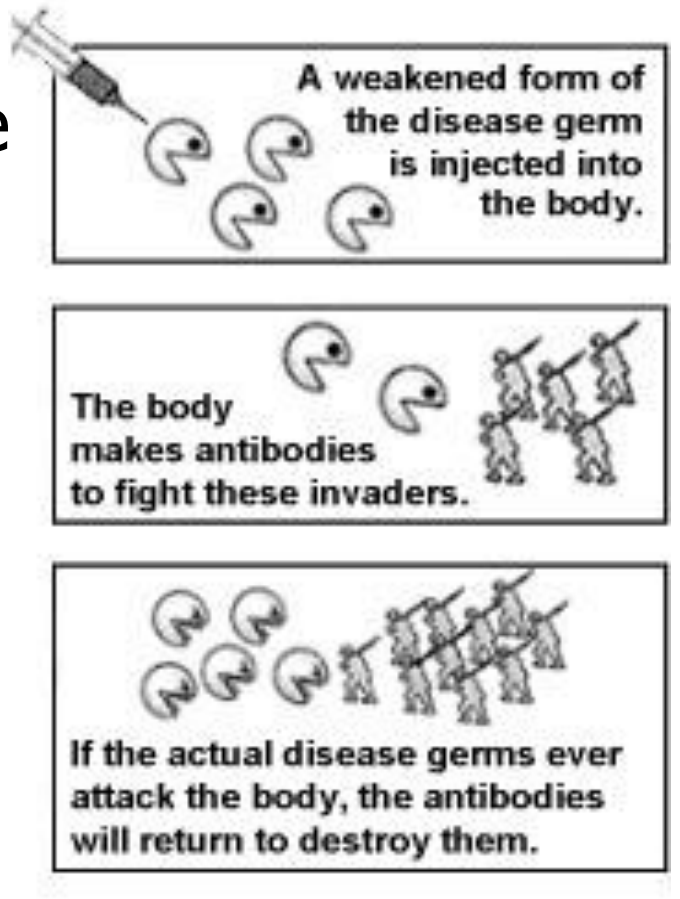
- Germs (antigens) invade the body, attack and multiply
- This invasion is called an infection
- Infections cause illness
- Immune system produces antibodies that fight the germs (antigens)

# What is Immunity?

- Once the body fights the infection it is left with a supply of cells (memory cells) that fights the germ (antigen) should the person come in contact with the germ again

# What are Vaccines ?

- Contain same antigen or parts of antigens that causes disease
- Antigens in the vaccines are either killed or greatly weakened

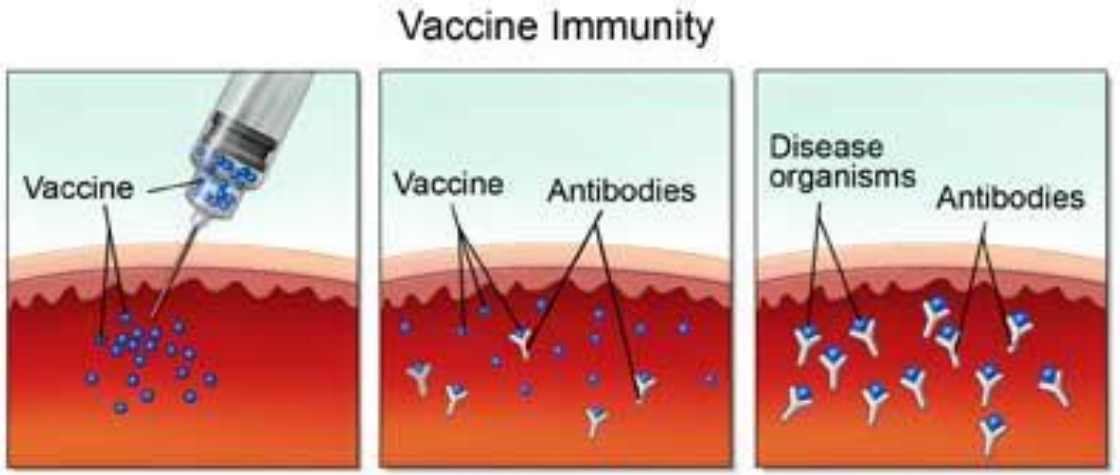


# What are Vaccines?

- Not strong enough to cause disease
- Strong enough to make the body produce antibodies against them

# What are Vaccines?

- We develop immunity without suffering from the actual diseases
- Memory cells prevent re-infection in the future



# Why We Need To Be Vaccinated

- Protect individuals against deadly diseases
- Protects the health of the community
- Protects those who cannot be immunized due to medical reasons (ie Leukemia)

# Why We Need To Be Vaccinated

- Protects those who are too young to be immunized
- Protects those who do not develop an adequate response to vaccines (ie. weakened immune system)
- Protects our future grandchildren and their grandchildren

# What if we stop immunizing?

- Diseases almost unknown would stage a comeback
- We would see epidemics of diseases
- More children would get sick and more would die

Mumps

# What if we stop immunizing?

- During the 1990's former Soviet Union experienced a re-emergence of diptheria after a decline in immunization levels. This led to over 140,000 cases of diptheria and 4,000 reported deaths.

# What if we stop immunizing?

- In 2000 Ireland reported an increase in measles cases from 148 to 1,200 due to a decline in the measles immunization coverage. Several children died due to the complications of measles.

# What if we stop immunizing?

- In 2011 in Canada, measles importation led to a large outbreak involving more than 700 cases(largely in Quebec)
- Where immunization status was known approximately 80% of cases were not adequately immunized for their age

# Vaccines Are Safe

- Vaccines in Canada are effective and safe, much safer than contracting the disease
- Vaccines are continuously monitored and tested

# Vaccines Are Safe

- Most reactions are minor and last for 24-48 hours
- Most common reactions involve swelling, redness and pain at the injection site as well as fever

# Vaccines Are Safe

- More serious reaction like life-threatening allergic reactions are possible, but are extremely rare
- In fact, they happen less than once per million doses of vaccine administered in Canada
- The dangers of vaccine-preventable diseases are many times greater than the risks of a serious adverse reaction to the vaccine

# Vaccines

- Vaccines are generally given by injection (needles or "shots")
- Some vaccines target only one disease, while others target more than one

# Vaccines

- Some offer lifelong immunity with only one dose, while others require boosters in order to maintain immunity
- Boosters serve as a "reminder" to your immune system

# What Vaccines are Recommended?

- NL Immunization schedule

# Immunization Tips

- Keep a record of your immunizations and those of your family
- Check with your Public Health Nurse to see what vaccines you require

# Immunization Tips

- Follow the immunization schedule as recommended by your Public Health Nurse
- If you have vaccine questions ask your Public Health Nurse

# Immunization Tips

- Read immunization information from credible sites (Public Health Agency of Canada, Immunization Canada, Health Canada)

# Immunization Success

- Vaccination has been hailed as one of the ten greatest public health achievements of the 20th century and is credited with saving more lives than any other health intervention

Central Health

# Questions?

HEALTHY CHILD HEALTHY WORLD

# References


- Gold, R. (2006). *Your child's best shot: A parent's guide to vaccination* (3rd ed.). Ottawa, ON: Canadian Paediatric Society.
- Public Health Agency of Canada (2013). *Canadian immunization guide* (evergreen ed.) Retrieved from: http://www.phac-aspc.gc.ca/publicat/cig-gci/index-eng.php