



Child's

Immunization

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Learning objectives

To know the Iraqi immunization schedule

To Identify the Types of Vaccines

To Identify the Indication of Immunization

To recognize the Serious Complications and contraindications of immunization.

To understand Nursing care before giving immunization



Definitions

Immunity:

The ability to destroy a particular antigen, it is may be inherited (natural) or acquired (artificial).

Or Protection against a disease. There are two types of immunity, passive and active.

Natural immunity:

Resistance to infection or toxicity.

Acquired immunity:

Exposure to invading agents, either from bacteria, virus, or toxin.

Definitions

Immunization:

The process of inducing active or passive immunity artificially by administering an immunobiologic.

Immunobiologic:

Antigen substances (vaccine or toxoid) or antibodies containing preparation (globulins or antitoxin) from human or animal, used for active or passive immunization.



Definitions

Vaccination:

Injection of a killed or weakened infectious organism in order to prevent the disease.

Vaccine:

A product that produces immunity therefore protecting the body from the disease. Vaccines are administered through needle injections, by mouth and by aerosol.

Definitions

Attenuate:

Reduce virulence (infectiousness) organism by treating it with heat or chemical it on certain media.

Toxoid:

Modified bacterial toxin that has been not toxic but has the ability to stimulate antitoxin formation.

Antitoxin:

A solution of antibodies from animals' serum immunized with antigen (passive immunity).

Types of Vaccines

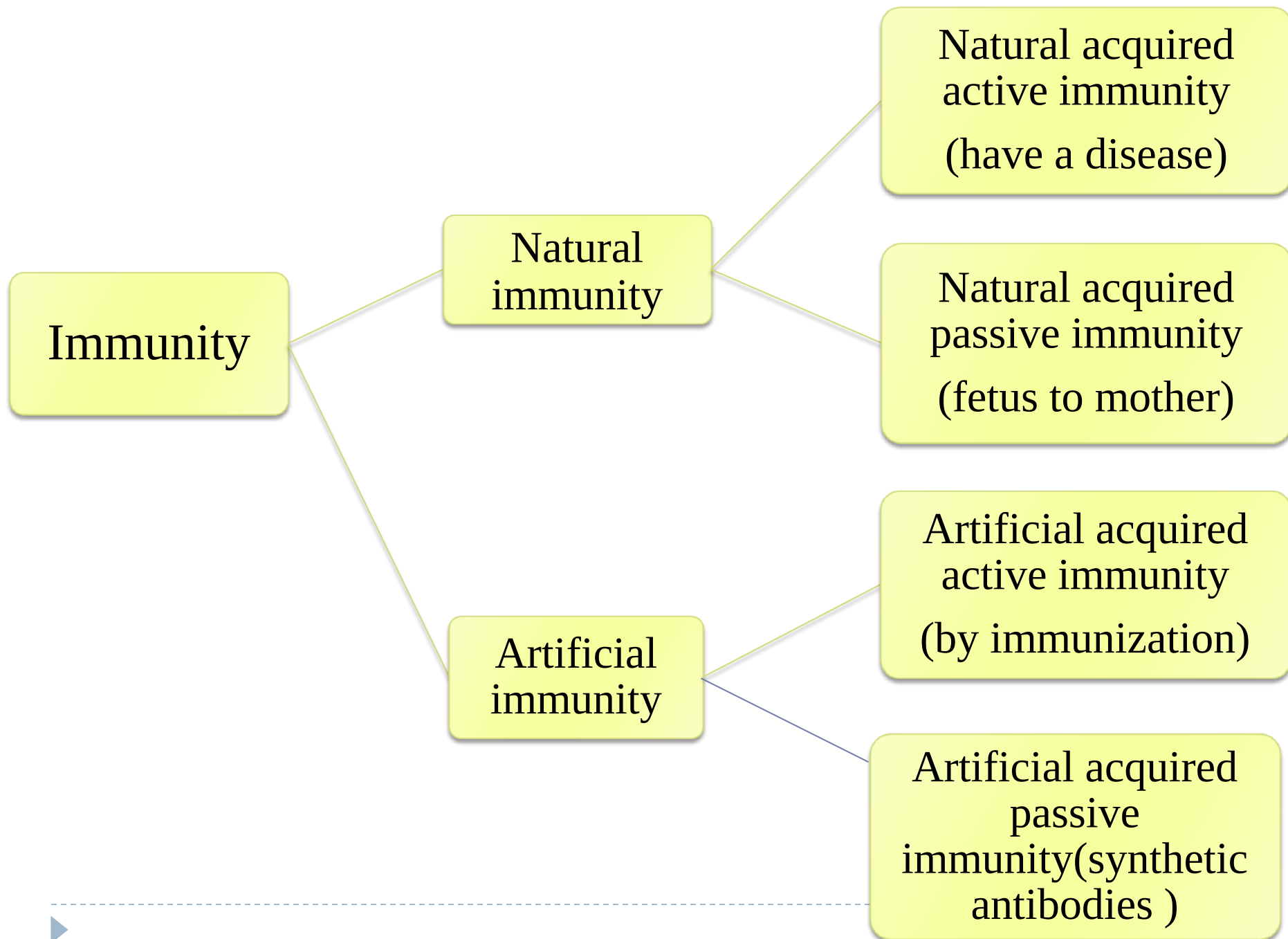
There are a few different types of vaccines. They include:

Attenuated (weakened) live viruses are used in some vaccines such as in the measles, mumps, and rubella (MMR) vaccine.

Killed (inactivated) viruses or bacteria are used in some vaccines, such as in IPV.

Toxoid vaccines contain an inactivated toxin produced by the bacterium. For example, the diphtheria and tetanus vaccines are toxoid vaccines.

Conjugate vaccines (such as Hib) contain parts of bacteria combined with proteins.



Indication of Immunization

- ▶ Immunizations protect you or your child from dangerous diseases.
- ▶ They help reduce the spread of disease to others.
- ▶ Vaccines protect not only yourself but also others around you.
- ▶ Getting immunized costs less than getting treated for the diseases that the shots protect you from.

Immunization protects future generations

- ▶ When immunization rates drop below a certain level, preventable diseases show up again.
- ▶ Decrease morbidity and mortality of disease.



Vaccination schedule in Iraq by child age

- ▶ At birth: BCG, OPV-0, HBV-1.
- ▶ 2 months: (DTP-1, Hib1, and HBV-2), OPV1 and Rotavirus1.
- ▶ 4 months: Quadruple vaccine (DTP-2 and Hib2) OPV2 and Rotavirus2.
- ▶ 6 months: (DTP-3, Hib3, and HBV-3), OPV3 and Rotavirus3.
- ▶ 9 months: Measles
- ▶ 15 months: MMR1
- ▶ 18 months: booster dose (DTP 1, and Hib) OPV 1.
- ▶ 4-6 years: booster dose DTP2, OPV 2 and MMR

Age	Vaccines	Routes	Dose
At birth-first week	Polio BCG Hepatitis B virus	Oral Intra- dermal (I.D) in Lt deltoid	2 drops
2 months	Polio DTP Hepatitis B virus	Oral IM	0.1 ml
4 months	Polio DTP	Oral IM	0.5 ml
6 months	Polio DTP Hepatitis B virus	Oral IM	0.5 ml
9 months	Measles	Subcutaneous / S.C	0.5 ml
15 months	MMR (measles, mumps, rubella)	Subcutaneous / S.C	0.5 mL
18 months	First booster dose (polio & DTP)	Orally & I.M	2 drops 0.5 ml
4-6 years	Second booster dose (polio & DTP)	Orally & I.M	2 drops 0.5 ml

What Are Some Complications of Vaccinations?

Mild Reactions:

- ▶ Inject able vaccines can cause localized pain, redness and swelling at the site of the injection.
- ▶ Fevers usually go away in 1-2 days.
- ▶ Fussiness
- ▶ Tiredness
- ▶ Loss of appetite
- ▶ Drowsiness
- ▶ Mild, temporary vomiting or diarrhea within the first week of getting rotavirus.

Serious Complications:

- ▶ Serious allergic reactions or anaphylaxis – extremely rare; occur within a few minutes to a few hours after the shot.
- ▶ Long-term seizures, coma, lowered consciousness, and permanent brain damage after DTaP– very rare.
- ▶ Guillain Barre Syndrome –vaccines containing the tetanus toxoid (DTaP, Td,Tdap), meningococcal vaccine – paralysis – very rare.

Contraindication of Vaccines

- ▶ If your child has had a serious reaction to the first dose . (Anaphylactic reaction)
- ▶ Children who have certain types of cancer.
- ▶ Congenital immunodeficiency.
- ▶ Who are taking drugs that lower the body's ability to resist infection.
- ▶ BCG should not be given to children who are on systemic steroid therapy or immune suppressed for any reason pregnancy.

Nursing Before Giving the Vaccines

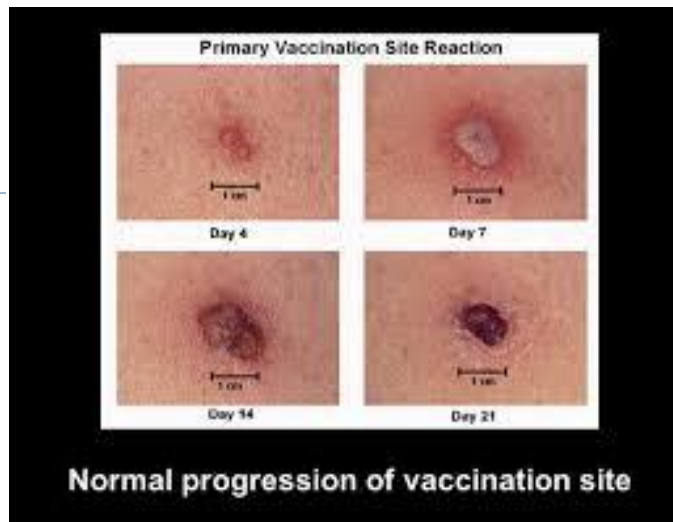
1. Is the child sick today.
2. Does the child have allergies reaction before or after a vaccination ?
3. Does the child have problem with immune system due to disease or medication.
4. if the child gotten a transfusion, or any other blood product, recently.
5. Does the child have problem with nervous system such as convulsions?

Nursing care before giving immunization

- ▶ Hand washing.
- ▶ Gloves not required (only if potential exposure to body fluids from a lesion).
- ▶ Proper equipment and means of needle disposal
 - a- 1 or 3 mL syringe with 22-25 g needle
 - b- needle safety device.
- ▶ Check expiration date
- ▶ Document lot number on chart nursing consideration during immunization ask about previous reaction to immunization.

الجدول الوطني لتلقيحات الأطفال في العراق:

العمر عند التلقيح	نوع اللقاح	رقم الجرعة
خلال أول ٢٤ ساعة من الولادة	الكبد الفايروسي نمط B صغار	
خلال الأسبوع الأول	شلل الأطفال الفموي بي سي جي	جرعة الصفر
٢ شهر	شلل الأطفال الفموي الخماسي الخلوي المكورات الرئوية المقترن الفايروس الدوار	الجرعة الاولى (ج ١) الجرعة الاولى (ج ١) الجرعة الاولى (ج ١) الجرعة الاولى (ج ١)
٤ شهر	شلل الأطفال الفموي الخماسي الخلوي شلل الأطفال الزرقي المكورات الرئوية المقترن الفايروس الدوار	الجرعة الثانية (ج ٢) الجرعة الثانية (ج ٢) الجرعة الاولى (ج ١) الجرعة الثانية (ج ٢) الجرعة الثانية (ج ٢)
٦ شهر	شلل الأطفال الفموي الخماسي الخلوي شلل الأطفال الزرقي المكورات الرئوية المقترن الفايروس الدوار	الجرعة الثالثة (ج ٣) الجرعة الثالثة (ج ٣) الجرعة الثانية (ج ٢) الجرعة الثالثة (ج ٣) الجرعة الثالثة (ج ٣)
٩ شهر	الحصبة المنفردة فيتامين A (١٠٠,٠٠٠) وحدة دولية	
١٢ شهر	الحصبة المختلطة	الجرعة الاولى (ج ١)
١٨ شهر	شلل الأطفال الفموي اللقاح الثلاثي الحصبة المختلطة فيتامين A (٢٠٠,٠٠٠) وحدة دولية	الجرعة المنشطة الاولى (م ١) الجرعة المنشطة الاولى (م ١) الجرعة الثانية (ج ٢)
(٤ - ٦) سنوات	شلل الأطفال الفموي اللقاح الثلاثي فيتامين A (٢٠٠,٠٠٠) وحدة دولية	الجرعة المنشطة الثانية (م ٢) الجرعة المنشطة الثانية (م ٢)





Hepatitis b





Thank you for your listen