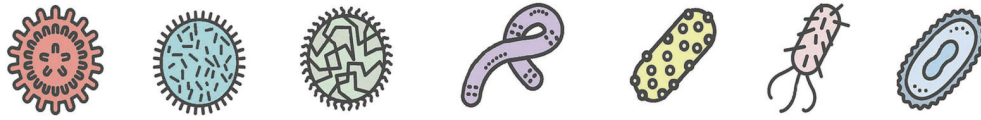


Vaccination: Health is not up for debate

Parents need better information



Health has always been a major concern for humans, and for infectious diseases it has always been considered that prevention is the key to avoid them. But what ways do we have to avoid them?

On this website developed with wix.com you can find information about vaccines, its composition, what function do they have, how they are administered and what current issues are related to vaccines.

ABOUT VACCINES

This block features information related to vaccines: their function and composition, side effects, their importance and the controversy about the anti-vaccine collective.

Should I vaccinate my children? What are vaccines made of? Are vaccines dangerous? Do vaccines cause autism? How do vaccines work? What good are vaccines? What is an adjuvant? Who are the antivaccines? These are many questions answered in the website.

FUNCTION AND COMPOSITION

A vaccine is any preparation intended to generate immunity against a disease by stimulating the production of antibodies. Passive immunisation is the injection of antibodies and it is used when no vaccine is fully developed or when there is no time for a full immune response to develop meanwhile active immunisation is the application of vaccines themselves that promote an immune response of the organism to develop an immune memory to form protective antibodies against the antigen in question. The most common route of administration is injection with syringe and needle but it is trying to be eliminated. There are oral vaccines and new possibilities are being explored: the mucosal (nasal spray or drops) or guns with cartridges made of gold microparticles, the called needle-free devices.

What is injected?

- Immunising Agent: See figure 1
- Adjuvants
- Preservatives
- Formaldehyde

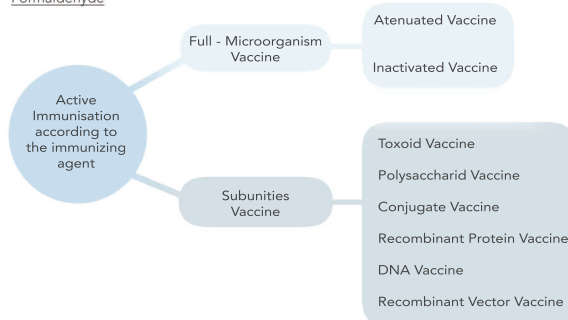


Figure 1: Active immunisation according to the immunising agent

ANTIVACCINE CONTROVERSY

Since the beginning of vaccination, an "anti-vaccine" activism advocates that vaccines do not work, that are or may be dangerous, that personal hygiene should be emphasized instead, or that mandatory vaccinations violate individual rights or religious principles. Anyway statistics are clear and there has been a decrease in the vaccine-preventable diseases. Figure 2

Are there any recent cases of news involving the anti-vaccine collective?

In Olot (Barcelona) last May 28, 2015 a child was admitted with a tonsillitis symptomatology but it turns out that the parents decided not to follow the immunisation schedule and May 30, 2015 he was diagnosed with Diphtheria.

CURRENT TOPICS IN VACCINES

This block features diseases that have been, for some reason, a current issue and must be reflected on this project due to the importance of the ongoing situation. These diseases are Diphtheria, Meningitis B, Pertussis or Whooping Cough and Ebola and the information shown in the website answers to three main questions: What's to know? What should we care? Why is it current?



SIDE EFFECTS

A side effect is an effect, whether therapeutic or adverse, that is secondary to the one intended; although the term is predominantly employed to describe adverse effects, it can also apply to beneficial, but unintended, consequences of the use of a drug.

Vaccines, like any medicine, can cause some side effects:

- Most of these side effects are very mild, such as irritation at the injection site, irritability or mild fever.
- Typically, these side effects only last a couple of days and are treatable.
- Most of them are caused by the adjuvants that enhances the vaccine action.

WHY IS VACCINATION IMPORTANT?

Vaccines are a mechanism for the control of many infectious diseases that were common in the past. Pathogens that cause diseases, and can even cause death, still exist Figure 2 (although they can be prevented by vaccines) and can be transmitted to people who are not protected. Many diseases have a huge economic impact and consequently bring medical consultations, hospitalizations and premature deaths. World Health Organization estimates that vaccines prevent two to three million deaths each year.

Enfermedad	Casos (1984)	Casos (2014)
Difteria	0	0
Tosferina	5.745	1.116
Sarampión	2.229	142
Tétanos	22	1
Poliomielitis	0	0
Rubéola congénita	0	0
Parotiditis	20.576	264
Rubéola	8.168	1
Tétanos neonatal	0	0
Total	36.740	1.524
Fuente: SGVRES		

Figure 2: Variation shown in the number of reported cases of vaccine-preventable diseases in Catalonia between 1984 i 2014.

IMMUNISATION SCHEDULE

The vaccination schedule is a series of vaccinations, including the timing of all doses, which may be either recommended or compulsory, depending on the country of residence. This topic can cause much controversy over whether or not it could impact health after dosage at an early age.

In Spain, The Vaccine Advisory Committee of the Spanish Association of Pediatrics meets every year and recommend vaccines that should be offered to children and teenagers living in Spain. Developments appeared in scientific studies on vaccines are commonly used in childhood.

If the vaccination schedule is not followed as it should, vaccination recommendations should be applied with accelerated or rescue guidelines.

Each regional calendar depends on the economic resources or even the proximity of new elections. According to the Vaccine Advisory Committee of the Spanish Association of Pediatrics, "The bizarre situation of Spain, with 19 calendars with differences in content and chronologies, not argued from the point of health or social, is unique in the world. In some countries, but few, there are some different official calendars, but not on the level and disparity of Spain, leading to a distressing picture of the Spanish health system, both in our society and internationally."

REFERENCES

All the information for this poster was taken from the Vaccination: Health is not up for debate website (<http://mfpardos.wix.com/tfg-vaccines-eng>).