



Vaccination During Pregnancy – a tour of some key issues

Vaccination is one of the most controversial and divisive medical issues of our time. People's views tend to fall into one of three camps:

1. Those who see vaccination as one of the great wonders of medicine that has reduced mortality from a range of diseases;
2. Those who regards vaccination as a dangerous meddling with the body's immune system, reducing mortality for a few whilst leading to a wide range of auto-immune dysfunction and chronic disease for the many;
3. Those who are cautious about vaccination/wonder if it might have some negative effects/feel it is probably advisable for "herd immunity"/agree with the guidelines of bodies such as the NHS or World Health Organisation¹ with some reservations.

There are strongly-held views on both sides of the debate. AIMS does not endorse any particular view on this issue, but recognises that vaccination has acquired the status of a medical dogma and questioning it is almost impossible from within the medical establishment. It is therefore extremely difficult for members of the public to ask questions and receive an unbiased, in-depth answer from their healthcare professionals.

AIMS is committed to supporting you in your choice and to protecting your fundamental right to consent or withhold consent to the vaccinations offered during pregnancy. It is YOUR body, YOUR baby and YOUR life and very important that you come to your own decision about this as for every other part of your pregnancy and birth journey. We list below some points you should be aware of when making to a decision about being vaccinated during pregnancy, and point you to further resources that may help you in your decision-making journey:

Vaccination for Pertussis (Whooping Cough)

- From the late 1980s to 2012 there was a rise in the number of very young babies diagnosed with whooping cough despite earlier vaccination (first vaccination was moved from 3 to 2 months in 1990). Some of this rise is possibly explained by the introduction of a new laboratory test from 2006, i.e. there is more diagnosis of whooping cough rather than more whooping cough about.
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Whooping cough tends to peak every four years and is more common from July to September each year². Public Health England publishes quarterly reports which give the latest figures for all notifiable diseases in England, including pertussis, on an ongoing basis. The website is in the resource section below.

- During 2012, the peak year for recent whooping cough illness, 14 babies below the age of 3-months died from whooping cough in the UK. In the four years from 2013 to 2016, 18 babies below the age of 3-months died³.
- In 2012, it was decided to introduce the offer of vaccination to pregnant women in an attempt to “cover” these young babies through maternal vaccination because the vaccine (acellular) used exclusively in the UK since 2004 has less long-term efficacy, although fewer side-effects, than what was used before (whole-cell). In other terms its ability to produce antibodies to pertussis gets less over time. So pregnant women vaccinated after 2004 are less able to provide sufficient protective antibodies to whooping cough to their babies via the placenta (although the situation for women who have already had whooping cough may be different – see below). The minutes of the meeting at which this decision was taken can be read here: <https://app.box.com/s/iddfb4ppwkmjtjusir2tc/file/229171684750>
- It is clear from these minutes that there were [and remain] areas of uncertainty around the effectiveness and safety of introducing pertussis vaccine for pregnant women.
- Since 2016, the recommended gestation for vaccination in the UK was revised to 16 to 32 weeks (it was previously 28 to 32 weeks) to increase the opportunity for women to be vaccinated.
- Vaccination against pertussis in pregnancy offers some protection to the baby. In a study of 148,981 children followed up in the USA from 2010-15, there were:
 - 17 cases of whooping cough under 2 months of age, 15 among the babies of women not vaccinated in pregnancy and 2 among the babies of women who were vaccinated during pregnancy;
 - 103 cases of whooping cough in the first year of life, 80 in babies of women not vaccinated in pregnancy and 22 among the babies of women who were vaccinated during pregnancy⁴. This study does not state how many women, if any, had earlier naturally-transmitted whooping cough and naturally-acquired antibodies resulting from this.
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By 2017, 76% of pregnant women in the UK were being vaccinated for pertussis during pregnancy. Rates of confirmed infection of babies under 1 year in England had fallen from 508 in 2012 to 169 in 2017⁵.

- Having had whooping cough as disease rather than vaccine provides good protection for babies in the first month of life via the placenta, colostrum and breastmilk. Thereafter protection lessens though at a variable and individual rate⁶.
- Vaccines containing 5 rather than 3 pertussis antigens (antigens are what prompt the body to make antibodies) are known to provide greater efficacy in terms of antibody development⁷. In the UK both 3 and 5-antigen preparations are used: Infanrix and Boostrix (Glaxo-Smith-Kline) contain 3 antigens, Pediacel and Repevax (Sanofi Pasteur) contain 5. However, the relationship between antibody count and immunity is not straightforward with antibodies providing only a rough indicator of immunity.
- The vaccine given to pregnant women does not just contain pertussis vaccine but also contains diphtheria, tetanus and polio vaccines (DPPT). This is because single pertussis vaccine is not readily available and would be more expensive to provide.
- All vaccines contain a range of potentially toxic substances as preservatives to maintain the vaccine in an appropriate form for injection. These substances include aluminium ([Vaccine Knowledge Project 2018](#)). It is not known what, if any, health impacts these may have.
- The vaccine does not contain pork-derived gelatin. To find out what is in the vaccine you are being offered, put the name of the vaccine into the search engine at www.nhs.uk/conditions/vaccinations/vaccine-ingredients and open the Patient Leaflet (second tab).
- Not being vaccinated against an illness does not necessarily mean you will be susceptible to catching it even when exposed. During a Swedish outbreak of whooping cough in the 1980s, about 95% of vaccinated children and 86% of unvaccinated children did not become ill⁸.
- In-utero vaccination tends to reduce responses to later vaccinations in the baby, both to pertussis vaccination and to Hib vaccination. This *may* lead to an increased incidence of whooping cough in later childhood and mean a need for many more booster doses to provide protection⁹.
- All vaccines come with a Package Leaflet for the recipient of the vaccine. Please do ask for this and

read it before consenting to vaccination in order to be able to make an informed decision. You can ask for a copy of the leaflet at the appointment before the one at which you are due to be vaccinated or find a copy online. These leaflets are highly informative and specify what side-effects to observe for.

- Contraindications to the vaccine for DPPT are allergic reactions to the vaccine or its ingredients previously, and allergy to the antibiotics neomycin or polymycin. Allergic reactions include itchy skin rash, shortness of breath, swelling of the tongue or face, encephalopathy or brain/nerve problems, and a reduction in platelets.
- A study published in the British Medical Journal¹⁰ found:
 - No increased risk of stillbirth either immediately after vaccination or across the remainder of the pregnancy;
 - No increased risk of maternal or neonatal death, pre-eclampsia or eclampsia, haemorrhage, fetal distress, uterine rupture, placenta or vasa praevia, caesarean delivery, low birth weight, or child renal failure.
 - This study looked at the records of 20,074 vaccinated pregnant women and a matched historical unvaccinated control group. The study was not designed for longer-term follow-up of either mother or baby or to look at health impact of vaccination.

Remember, the decision whether or not to accept a vaccination for anything in pregnancy is yours and yours alone. You may wish to read the AIMS book “Am I Allowed” for more information on your rights during pregnancy, birth and beyond (www.aims.org.uk/shop/item/am-i-allowed)

Further Information:

Boostrix-IPV Information leaflet

Boostrix-IPV has been the vaccine mainly used for vaccination of pregnant women since 2014.

www.medicines.org.uk/emc/files/pil.5302.pdf

The Informed Parent

Probably the UK's main source of information on the issues surrounding vaccination. Whilst generally sceptical about and often critical of vaccination, TIP collects research information about vaccination to enable informed and individual consent, and campaigns for the right to refuse consent with regard to vaccination. It publishes a newsletter and has an informative website.

www.informedparent.co.uk

Jayne Donegan GP

Jayne Donegan is a medical doctor and a homeopath who has detailed information and articles both on vaccination, on childhood illnesses and the care of children during illnesses. Dr Donegan is a supporter of Andrew Wakefield and has some information about his story and her position on her website. She is a vaccine-sceptic wanting people to be more aware of the information that is available so that consent to vaccination is better-informed.

www.jayne-donegan.co.uk

NHS Choices

The NHS website on pertussis vaccination during pregnancy. You can download the NHS leaflet “Whooping cough and pregnancy” from this site, which also has a link to the Boostrix-IPV leaflet.

www.nhs.uk/conditions/pregnancy-and-baby/whooping-cough-vaccination-pregnant

Public Health England

This link is to the Government's information on pertussis on the PHE website. It includes information on pertussis vaccination for pregnant women and up-to-date statistics on the incidence of whooping cough in England. The statistical reports (on the bottom of the page under “Epidemiology”) are clearly laid out and easy to read.

www.gov.uk/government/collections/pertussis-guidance-data-and-analysis

The Vaccine Knowledge Project

An Oxford-based and medically overseen website with a lot of information in a clear format. This is a pro-vaccine website with an orthodox medical viewpoint trying to make a wider range of information accessible to the general public. Amongst the many useful sections on each vaccine is a list of all the substances contained in the vaccine, and a list of the recognised side-effects and complications.

vk.ox.ac.uk/pertussis-vaccine-in-pregnancy

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(Please be aware that 2 of the 5 authors of this paper receive research-funding from the major vaccination manufacturers.)
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AIMS supports all maternity service users to navigate the system as it exists, and campaigns for a system which truly meets the needs of all. AIMS does not give medical advice, but instead we focus on helping women to find the information that they need to make informed decisions about what is right for them, and support them to have their decisions respected by their health care providers. The AIMS Helpline volunteers will be happy to provide further information and support. Please email helpline@aims.org.uk or ring 0300 365 0663.