



Note: the words “immunization” and “vaccination” are often used interchangeably on websites and in other things you might read.

Immunization Information on the Internet: Can you trust what you read?

The goal of this fact sheet is to help you decide if vaccine information you find on the Internet is accurate.

1. Is it clear who owns the website?

- Is the name of the organization or the name of the person responsible for the website in clear view?
- **Think:** Websites you can trust do not hide their identity. Look for text that tells you more about the owner or author of the site.
- Look for a page called “About Us” or “About [Sponsor’s Name]”. This page should provide contact details such as an e-mail address, telephone number, or mailing address.
- The website should be endorsed by a health agency or association you can trust.
- The site should refer to organizations that maintain standards, such as the National Advisory Committee on Immunization (in Canada), or other such organizations based in other countries.
- Look for information that spans and includes municipal, regional, national, or international concerns – not just the views of a single person.

2. Does the website clearly state its purpose?

- Sometimes, a website exists only to sell something. There is nothing wrong with a website that sells books or DVDs, or asks you to endorse a cause, but these motives should be clearly stated.

3. Is the information on the website based on sound scientific study?

- Scientists discover truth by testing their findings again and again. This approach helps them to be sure that their thinking and methods are not flawed. It works to ensure that they are not making personal assumptions or that special conditions have not had an effect on the results.
- **Think:** Studies that involve hundreds of people or cases have more credibility than accounts of a single case.
- The most useful studies compare the findings from one group of people or cases with the findings from another group (control groups).
- Sound scientific studies are endorsed by groups or institutions whose purpose is to uphold science, such as professional associations and universities.
- **Take time to find out:** Does the website provide you with references and links to scientific studies that are published in peer-reviewed journals? Peer-reviewed means that a group of experts in the same field has reviewed the work before it becomes public. This supports impartiality in the way work is published.
- Examples of peer-reviewed journals that are well respected are The Lancet, New England Journal of Medicine, Vaccine, and CMAJ.

CHECKLIST of questions to ask yourself

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|---|---|
| <input type="checkbox"/> Is it clear who owns the website? | <input type="checkbox"/> Is the website filled with “junk science” or conspiracy theories? |
| <input type="checkbox"/> Does the website clearly state its purpose? | <input type="checkbox"/> Are the people or groups giving you information online qualified to address the subject? |
| <input type="checkbox"/> Is the information on the website based on sound scientific study? | <input type="checkbox"/> What is the website’s privacy policy? |
| <input type="checkbox"/> Does information on the website make sense? | <input type="checkbox"/> Does the website direct you to additional information? |
| <input type="checkbox"/> Does the website weigh evidence and describe the limits of research? | |

4. Does information on the website make sense?

- *Think:* Is it too good to be true? (“Eat one lemon a day and you will never have cancer!”)
- Is it too awful to be true? (“Millions die when they get these vaccines!”)

5. Does the website weigh evidence and describe the limits of research?

- *Think:* If conclusion # 1 is reached in 3 studies and conclusion # 2 is reached in 30 studies, which conclusion is more likely to be true? In the world of science, this is known as the weight of evidence.
- Be careful of people who claim that they, and only they, have found “the hidden truth”.
- The scientific approach takes time and is open to questions.
- Solid professional researchers are not afraid to discuss both the weakness and strength of their research findings. They may even say that the findings did not produce clear results, or that more research is needed before anyone can come to a conclusion. A website that reflects this approach to science is more likely to be a website you can trust.

6. Is the website filled with “junk science” or conspiracy theories?

- Beware of websites that do not make a clear distinction between facts and assumptions. The “theories” that come from such an approach may be broadcast by the media, but this does not mean they are true or have any basis in science.
- “Junk science” is defined as hasty and sensational claims that other scientists have not seen, reviewed, or confirmed.
- Conspiracy theories often provide the public with a quick and exciting answer to a puzzle. Attention from the media does not necessarily mean that these “answers” are correct or true.
- *Think:* If you take apart the pieces of “proof”, does the puzzle really fit together again?
- If a website contains claims based on the idea of a conspiracy, or if it says it has found the “hidden truth” about vaccines”, avoid it.
- Does the website suggest you stop working with your licensed health care provider? *Think:* How

can any website replace the trusting relationship you have with your health care provider?

7. Are the people or groups giving you information online qualified to address the subject?

- Be careful of articles that are written by “world-famous researchers”, “well-known scientists”, or “noted experts” but that do not give you the authors’ names.
- *Think:* A researcher who has done good solid work will insist that his/her name appear on the work, even if it’s controversial.
- Who produces the website’s information? What education do they have that relates to the health topic or area? What other work have they published, and where?
- A website should provide you with the names of authors whose work appears on the website, and their affiliations.
- Check whether the authors have knowledge and expertise in vaccines and immunization.
- Look for details such as whether they belong to a professional body in the medical, nursing, scientific, or other public health fields.

8. What is the website’s privacy policy?

- Does the website ask for personal information? Make sure the site’s privacy policy clearly states how the owner of the site will use and protect your personal information.

9. Does the website direct you to additional information?

- Does the website give you a telephone number, e-mail address, or postal address so you can ask questions or learn more?
- Does the website provide you with a reading list or list of sources?
- Can you borrow books on the reading list from a public library, or are the books (or DVDs) a source of income for the person who owns the website?
- If government documents of any kind are listed on the website, be aware that they are usually free or you can order them at low cost through the government department itself.

WEBSITES WE RECOMMEND

immunize.ca
www.phac-aspc.gc.ca

www.caringforkids.cps.ca
www.cdc.gov
www.immunizationinfo.org
www.path.org/vaccineresources/
www.ecbt.org
www.who.int/immunization

Immunize Canada
Public Health Agency of Canada
or your provincial or territorial Ministry of Health website
Canadian Paediatric Society
Centers for Disease Control and Prevention (U.S.)
National Network for Immunization Information (U.S.)
Children’s Vaccine Programs (U.S. & international partners)
Every Child By Two (U.S.)
World Health Organization