# Online resources in pediatrics

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## Abstract

***Question*** In the past few years, parents of children seen in my clinic are frequently conducting online searches relating to medical questions. How reliable are online resources in pediatrics and what guidance can I provide parents when searching online about their children's health?

***Answer*** The use of the Internet to gather medical information has increased dramatically over the past decade, including in the field of pediatrics. The enormous amount of information is confusing to parents and providers alike, and general search engines have not done enough to distinguish reliable from biased information. Physicians can develop websites with reliable content, advise parents on how to identify reliable sources of information, and give examples of websites to review child health–related topics.

Since it was commissioned by the US government in the 1960s as a communication network, the Internet has grown and is dominating our lives. Although the use of the Internet is difficult to track, several billion people use the World Wide Web through private, academic, and commercial computers (servers).[1]

The use of the Internet and the vast information available on the network for medical purposes has exploded over the past several years. In an Ontario study from 2006, 56% of parents in a pediatric emergency department waiting room reported having searched the Internet for health-related information, and 8.5% of those had searched immediately preceding their visit.[2] In a 2012 survey from an American emergency department with a predominantly minority and economically disadvantaged population, 98.9% of participants reported having Internet access.[3]

The effect of the Internet on health perception and action by individuals is substantial. Pew Internet Project from the Pew Research Center in Washington, DC, is documenting trends in the use of online platforms for health care. It reported that, as of 2013, 35% of US adults said that they had gone online at one time or another specifically to try to figure out what medical condition they or someone else might have.[4] Half (46%) of those interviewed reported the information found online led them to think they needed the attention of a medical professional. As many as 41% of respondents said a medical professional confirmed their diagnosis, 35% said they did not visit a clinician to get a professional opinion, and 18% said they consulted a medical

professional and that the clinician either did not agree or offered a different opinion about the condition.[4]

Among caregivers to others such as children and older individuals (about 40% of the population), engagement and pursuit of health information online is even higher than for the population in general.[5]

Investigators from London, England, asked parents in outpatient clinics to complete questionnaires regarding Internet use to find information on their children's condition (75% of whom reported using the Google search engine[5]) and found that the Internet was a useful tool in teaching parents about their children's health. They suggested that the best way to ensure that parents had access to high-quality and accurate information about their children's condition was for health care providers to serve as the source.[6]

## Pediatric-specific sites

Recently, a new website for parents was launched, **www.medschoolforparents.com**, in Canada by a team led by Dr Ran Goldman (this article's author). This website is an evidence-based source and is a reliable resource for parents in the area of pediatric conditions; its content is written by health care providers who are experts in general pediatrics and pediatric subspecialties.

**Table 1** provides a list of frequently used online pediatric-specific resources for parents and adolescents.

## Choosing resources

Health care providers have an important role in advising

**Table 1.** Frequently used online pediatric–specific resources for parents and adolescents

| SOURCE | WEBSITE | COUNTRY |
|---|---|---|
| Med School For Parents | www.medschoolforparents.com | Canada |
| Caring For Kids (Canadian Paediatric Society) | www.caringforkids.cps.ca | Canada |
| AboutKidsHealth | www.aboutkidshealth.ca | Canada |
| Pediatric Oncall | www.pediatriconcall.com | International |
| Dr Greene | www.drgreene.com | United States |
| Ask Dr Sears | www.askdrsears.com | United States |
| Healthy Children (American Academy of Pediatrics) | www.healthychildren.org | United States |
| KidsHealth | http://kidshealth.org | United States |
| Medscape | www.medscape.com/pediatrics | United States |

patients and their families on choosing online resources to use. Four main criteria can be used to determine if a content-driven website is trustworthy:

• Is the website government run?
• Does the website have few advertisements?
• Are author names and dates included?
• Are references included?

*Government websites.*  Government websites contain large amounts of information on various topics relevant to patients. These sites are unbiased and have scientific editorial boards and review processes. Examples of government sites include **www.hc-sc.gc.ca** (Health Canada), **www.fda.gov** (US Food and Drug Administration), and **www.cdc.gov** (Centers for Disease Control and Prevention).

*Websites with fewer advertisements.*  While some excellent medical-related websites with pediatric information include advertisements (such as the Mayo Clinic website, **www.mayoclinic.org**), others might be commercially biased or sell products and, for the average patient or parent, differentiation of biased and unbiased content is challenging.

*Author and date included.*  Material written by health care providers under their names is usually of better quality. Furthermore, websites that present a date for the last update of specific content inform readers about how current the information is.

*References.*  If references are included, the empowered parent should be able to determine the quality of the sources for the content provided on the website, as well as be able to read more information. Websites that provide reference material are usually more accurate and reliable. Wikipedia's articles (**http://en.wikipedia.org/wiki/Main_Page**) are supported by references, which can guide readers for further reading.

## Conclusion

To help parents with online searches on pediatric medical information, physicians can develop websites with reliable content, advise parents on how to identify reliable sources of information, and provide a list of websites that review child health–related topics. 🍁

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Do you have questions about the effects of drugs, chemicals, radiation, or infections in children? We invite you to submit them to the PRETx program by fax at 604 875-2414; they will be addressed in future **Child Health Updates**. Published **Child Health Updates** are available on the *Canadian Family Physician* website (**www.cfp.ca**).

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