Parents commonly ask their paediatrician about specific Web sites that would be appropriate in their search for additional health information about their child’s condition. Some parents may be less interested in a physician’s recommended Web sites and may instead choose to search the Internet for sites that can offer a second opinion about their child’s health. The majority of Canadian households now have Internet access. Among parents who were interviewed at a large Canadian paediatric emergency department, over 90% reported home Internet access and over 50% of the parents searched the Internet for health-related information. Families with lower socioeconomic status are also increasingly accessing the Internet for health-related information. Information obtained from the Internet may influence a parent’s decision about health interventions for their children, and these decisions are often not discussed with the children’s physicians.

Quality of internet health sites

There is no requirement for accuracy or quality control of health information published by Internet service providers. Individual Web sites may choose to publish only high-quality health information, but many Internet sites publish health information that is misleading, incomplete, inaccurate or contradictory. An Internet-based health information prescription may prove to be the preferred choice, considering both expedience and expense. There is evidence to support the paediatrician’s role in effectively guiding parents to find Internet sites that provide high-quality health information about children.

Choosing internet sites for high-quality health information

Is the host of the health information Web site engaged in a conflict of interest?

- Does the host site sell a product or service?
- Even if no product or service is being sold directly through the Web site, is the site hosted by a for-profit organization? Regardless of whether or not a product is sold directly through an Internet site, information given as a ‘public service’ may directly affect parents’ decisions and indirectly affect retail sales. The Web site should have an ‘About us’ or ‘Contact us’ link. Anonymous Web sites hold no accountability and should be disregarded.
Is the host site sponsored by a for-profit organization?

Are there advertisements or ‘pop-ups’ on the Web site? A Web site may be profitable even if it is not selling anything other than advertising space. To be more successful in this domain, the publication of provocative opinions about health may increase the number of Web site ‘hits’ (or visits). Some Web sites that provide reliable information may control costs by advertising but should indicate that their sponsor is providing an ‘unrestricted grant’.

Is there a request for personal information? The site may be seeking an opportunity to advertise or sell a product through unsolicited e-mail.

Is there an online ‘anonymous’ questionnaire requested by the Web site? A company may choose to provide ‘free information’ in exchange for information about the demographics and values of those interested in the topic to increase the success of future marketing enterprises.

Is the information presented on the Web site peer reviewed?

Is the information on the Web site reviewed by experts in the field? Is the accuracy of the information checked through an appropriate peer-review process (eg, review by an editorial board)? Unsubstantiated claims made by ‘mavericks’ that seem too good to be true are, unfortunately, often untrue and should be considered ‘promising’, at best, until properly proven.

Is the site host a ‘recognized’ authority on the subject (eg, a national body to which government looks for council)?

Is the information up to date?

Is there a recent version of the information indicated on the Web site, and does the site indicate when the data were posted?

Is the information presented based on proper evidence?

Is a recommendation based on opinion or is there true evidence to support it? Even expert opinion is still just a point of view that is subject to personal bias. The opinion of recognized experts may be the best option when seeking health information, but only when good evidence is unavailable. Evidence may be unavailable when certain research questions are not feasible or when these questions have not yet been answered in a methodologically sound manner. When clear conclusions can be drawn from sound evidence, opinion that differs, even if from recognized experts, should be disregarded.

Is the evidence upon which the conclusion is based interpreted from data that are retrospective (less reliable) or prospective (more reliable but often less feasible to obtain)?

Is the evidence observational (more subject to bias) or experimental (more compelling but often less feasible)? Observational studies are those in which the study parameters are not designed a priori by the investigators.

Examples of observational information:

- testimonials or anecdotes (eg, “From our experience…”)
- Case reports
- Case series
- Cohort studies
- Case control studies

Examples of experiments that are designed to reduce bias are listed below, in order from strongest (least potentially biased) to weakest (most potentially biased) source of evidence:

- Double-blind, randomized, controlled clinical trials
- Randomized, controlled clinical trials
- Controlled clinical trials
- Clinical trials

Is the methodology of the study sound? For a further discussion of sound research methodology, see Sackett, Haynes and Tugwell’s Clinical Epidemiology [11].

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References
2. Goldman RD, Macpherson A. Internet health information use and e-mail access by parents.


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