

# FACT SHEET



SECTION ON

## PEDIATRICS

AMERICAN PHYSICAL THERAPY ASSOCIATION

### Section on Pediatrics, APTA

1111 North Fairfax Street  
Alexandria, VA 22314-1488

Phone 800/999-2782, ext 3254  
Fax 703/706-8575  
E-mail: [peditriatics@apta.org](mailto:peditriatics@apta.org)

[www.pediatricapta.org](http://www.pediatricapta.org)



## What Is Complementary and Alternative Medicine (CAM)?

Alternative medicine includes a group of diverse healing and preventive practices that are not part of traditional or conventional medicine.<sup>1,2</sup> Complementary medicine are practices that are used with conventional medicine.<sup>1,2</sup> The boundaries of complementary and alternative medicine (CAM) are constantly changing as evidence on intervention effectiveness becomes more accepted by physicians and other health care providers and are more often requested by families. Some physical therapy interventions are considered complementary while others may be considered alternative by other medical practitioners or payers. For instance, newer practices/interventions, such as constraint induced movement therapy, are not always immediately covered by insurance providers even though there may be a growing body of literature to support the intervention's effectiveness.

Physical therapists (PTs) should be aware that many people readily incorporate complementary and alternative medicine into their medical treatments based on different cultural beliefs. Respectful, family-centered care of children requires mutual participation of the physical therapist and the families/care givers when making decisions about complementary and alternative interventions. Open communication facilitates good decision making, therefore, it is important that family members seek and share information with their health care providers, including their physical therapist, when considering CAM interventions to reach the common goal of the best possible outcome for the child.

The National Center for Complementary and Alternative Medicine (NCCAM) of the National Institutes of Health (NIH)<sup>1</sup> classifies alternative interventions into 5 categories:

- Whole medical systems, built upon systems theory and practice (eg, homeopathic and naturopathic medicine)
- Mind–body interventions, which enhance the mind's capacity to affect bodily functions (eg, meditation or creative outlets)
- Biologically based therapies, which use substances found in nature (eg, herbs)
- Manipulative and body-based methods (eg, chiropractic or newer and popular physical therapy programs or techniques)
- Energy therapies, which involve use of energy fields (eg, Reiki and unconventional use of electromagnetic fields)

It is helpful to understand what category the intervention falls under when seeking information on CAM.

The questions and suggestions that follow are intended to facilitate mutual discussion and decision-making about CAM interventions.

## What Is the Evidence for the Effectiveness of Complementary and Alternative Intervention?

Conventional medicine emphasizes evidence-based practice, which is the use of the best available knowledge and research to guide decision-making. This same standard should be applied when looking at the evidence for any CAM intervention. The evidence from research should be interpreted in the context of the specific child, his or her daily routines, and his or her family. Anecdotes about interventions or testimonials are not considered to be adequate for decision-making, according to evidence-based practice. There are many ways to conduct a search of available information that is accessible over the Internet or in print.

- Search for evidence on the practice or intervention. NCCAM has a useful Web site ([www.nccam.nih.gov](http://www.nccam.nih.gov)), and the NCCAM Clearinghouse can be accessed by phone (888/644-6226). The staff is available to assist you with your search of medical and scientific literature.
- Search at your local or medical library. The reference librarian can help you research your topic.
- Search for the alternative intervention in PubMed ([www.pubmed.gov](http://www.pubmed.gov)), the NIH database for medical literature. A bibliographic database of journals covering alternative and complementary therapies is accessible through PubMed. If studies found in searches were supported by federal dollars, the full research papers are now available at no cost.
- Search for and read consensus documents, meta-analyses, and systematic reviews on the topic, if available (<http://www.cochrane.org/reviews/>)
- Consult with the child's primary health care provider and other specialists for information on the alternative practice in question. If the child's primary care physician is unsupportive or uninformed about the alternative practice, share what you know about the support for or questions raised about the intervention. If you wish to support the use of the intervention, try to be clear and objective about what goals you hope to achieve by pursuing the alternative or complementary practice.

- Consult with agencies, such as United Cerebral Palsy or the American Academy of Pediatrics, for links to information about alternative medicine.
- Search for the alternative intervention in "Hooked on Evidence" ([www.apta.org/hookedonevidence/index.cfm](http://www.apta.org/hookedonevidence/index.cfm)), the evidence-based review of topics by the American Physical Therapy Association, or in the Physiotherapy Evidence Database (PEDro) ([www.pedro.org.au](http://www.pedro.org.au)), the evidence-based review of topics by The George Institute of International Health and the University of Sydney.
- Remember that even if a research paper has been published, the therapist should evaluate the study to determine the level of evidence and how much the results can be generalized to practice. For assistance with evaluating research evidence, see The Guidelines for Critical Review Form, Quantitative Studies (<http://www.canchild.ca/en/canchildresources/resources/quantguide.pdf>).
- Be wary of interventions purported to help a variety of conditions or those that claim dramatic cures.

## What Are Other Considerations?

If research is not available on the alternative intervention, potential harmful effects may not be identified. For example, herbal medicines are not tested or regulated by the Food and Drug Administration (FDA), so potency can be inconsistent and the lowest effective dose for children may not be determined.

- "Natural" does not necessarily mean safe. Remember that vitamins and herbs can be potent chemicals, toxic in large doses, and may interact with other medications the child is taking. There may also be effects of abrupt withdrawal.
- Information about safety may be obtained through the sources suggested above. Also, check with the Federal Trade Commission ([www.ftc.gov](http://www.ftc.gov)) to see if there are any fraudulent claims or consumer alerts.

- Talk to your child’s primary health care provider to find out if the alternative practice has the potential to be dangerous. Areas of concern include, at a minimum, allergies, the child’s behavioral or biological reactions to new things, musculoskeletal impairments, development of skeletal structures and functions, behavioral issues, and financial stresses in the family.
- Consider whether the time and energy committed to the alternative interventions interfere with the child’s established daily routines and interventions.
- Consider the cost of the intervention. Is the child’s insurance going to cover costs? When the CAM is a physical therapy program or technique that is not covered by insurance, PTs or their support staff can explore alternative forms of payment including self-pay or scholarships. If the program or intervention has an evidence base, the PTs should lobby with the insurance companies using the research literature to support the use of the intervention and should work to change the reimbursement patterns.
- Speak with other families who have used the intervention to discuss the pros and cons from their perspective.

### **How Can I Evaluate the Qualifications of Alternative Practitioners?**

In conventional medicine, medical doctors and other health care providers have licensing boards that standardize practice and qualifications. Professional organizations also set practice and ethical standards.

- Inquire about the practitioner’s education and credentials. Education and credentials may include coursework, requirements for continued certification, and state licensure. Ask whether there is a brochure or Web site to tell you more about the practice.
- Find out if there is a professional organization for the type of practitioner that you are considering and contact it to obtain information about standards of care. Search for professional organizations on the Internet or by using directories in the library. The Directory of Information Resources Online (<http://dirline.nlm.nih.gov/>) lists locations and information

about a variety of health organizations.

- Ask the child’s primary care practitioner if he or she knows of a reputable practitioner of the intervention you are investigating. Seek recommendations from other parents or someone that you trust. Discuss with the practitioner realistic expectations, goals, duration of intervention, and negative side effects. Evaluate the practitioner’s knowledge about your child’s medical or developmental condition, but remember to respect the Health Insurance Portability and Accountability Act (HIPAA) regulations.

### **How Will I Know If the Intervention Is Helping?**

Change may occur at many different levels, including change in participation or activities as part of daily routines at school, at home, or in the community; and change in body structures and functions, such as flexibility of joints and selective attention. Physical therapists and health care providers should collaborate with the family to develop objective ways to measure change over time. Parents can communicate directly with their child’s physical therapist to determine the characteristics or behaviors that are targeted by the intervention and the expected timing for measuring change.

PTs and health care providers also should collaborate with the family to discuss observations of the effects of the intervention. The effects of intervention may be systematically observed and measured by providing interventions for a specific time, safely withdrawing the intervention for a specified time, then repeating the sequence. This is essentially use of a single-subject research design, or a well-constructed case study.<sup>3,4</sup>

## References

1. National Institutes of Health. National Center for Complementary and Alternative Medicine Web site. <http://nccam.nih.gov>. Accessed February 2, 2010.
2. Kemper KJ, Vohra S, Walls R. The use of complementary and alternative medicine in pediatrics. *Pediatr*. 2008;122(6):1374-1386.
3. Zhan S, Ottenbacher KJ. Single subject research designs for disability research. *Disability and Rehabilitation*. 2001;23(1):1-8.
4. McEwen I. *Writing Case Reports: A How-to Manual for Clinicians*. 3rd ed. Alexandria, VA: American Physical Therapy Association; 2009.
5. Adams RC, Snyder P. Treatments for cerebral palsy: making choices of intervention from an expanding menu of options. *Infants and Young Children*. 1998;10(4):1-22.
6. American Academy of Pediatrics, Committee on Children with Disabilities. Counseling families who choose complementary and alternative medicine for their child with chronic illness or disability. *Pediatr*. 2001;107(3):598
7. Davis CM. *Complementary Therapies in Rehabilitation: Evidence for Efficacy in Therapy, Prevention, and Wellness*. 3rd ed. Thorofare, NJ: Slack Inc; 2009.
8. Deutsch JE, Anderson EZ. *Complementary Therapies for Physical Therapy: A Clinical Decision-Making Approach*. Philadelphia, PA: Saunders Elsevier; 2008.
9. Dowshen S. Kids Health Web site. *Alternative Medicine and Your Child*. [http://kidshealth.org/parent/general/sick/alternative\\_medicine.html](http://kidshealth.org/parent/general/sick/alternative_medicine.html). Accessed February 2, 2010.
10. Harris SR. How should treatments be critiqued for scientific merit? *Phys Ther*. 1996;76(2):175-181.
11. Kemper KJ, O'Connor KG. Pediatricians' recommendations for complementary and alternative medical (CAM) therapies. *Ambulatory Pediatr*. 2004;4 (6):482-487
12. Law M, Stewart D, Pollock N, Letts L, Bosch J, Westmorland M. Guidelines for Critical Review Form: Qualitative Studies. <http://www.canchild.ca/en/canchildresources/resources/quantguide.pdf>. Accessed May 6, 2010.
13. McCann LJ, Newell SJ. Survey of paediatric complementary and alternative medicine use in health and chronic illness. *Arch Dis Child*. 2006;91(2):173-174.
14. Renella R, Fanconi S. Decision-making in pediatrics: a practical algorithm to evaluate complementary and alternative medicine for children. *European J Pediatr*. 2006;165:437-441.
15. Sandler AD, Cooley WC, Hirsch D. Counseling families who choose complementary and alternative medicine for their child with chronic illness or disability. *Pediatr*. 2001;107(3):598-601.

### For More Information:

If you have additional questions, would like to order additional copies of this fact sheet, or would like to join the Section on Pediatrics, please contact the Executive Office of the Section on Pediatrics of the American Physical Therapy Association at: APTA Section on Pediatrics, 1111 North Fairfax Street, Alexandria, VA 22314, [peditrics@apta.org](mailto:peditrics@apta.org), [www.pediatricapta.org](http://www.pediatricapta.org).

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