

## AAAAI Work Group Report



# Complementary and Alternative Medicine Use among Allergy Practices: Results of a Nationwide Survey of Allergists

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**The use of complementary and alternative practices in the field of Allergy/Immunology is growing. A recent survey of American Academy of Allergy, Asthma, and Immunology members examining patterns of complementary and alternative medicine (CAM) use and adverse effects from CAM revealed that a majority of practitioners (81% of respondents) had patients who are using CAM therapies over conventional treatments and many practitioners (60% of survey respondents) have encountered patients experiencing adverse reactions. During routine office visits, a majority of practitioners do not ask patients about CAM use, and when they do, most do not have a standard intake form to take a CAM history. There is a strong need to increase knowledge and improve measures to prevent adverse reactions to CAMs. © 2017 American Academy of Allergy, Asthma & Immunology (J Allergy Clin Immunol Pract 2017;■:■-■)**

**Key words:** Complementary medicine; Alternative medicine; Integrative medicine; Survey; Adverse reactions

The use of complementary and alternative medicine (CAM) in the United States is growing and continues to affect the delivery of health care in the foreseeable future.<sup>1,2</sup> In 2009, the Complementary and Alternative Practices committee of the American Academy of Allergy, Asthma, and Immunology (AAAAI) reported findings of a 2007 national survey of allergy specialists, which had an 8% response rate. The survey found that 80% of respondents were interested in learning more about CAM.<sup>3</sup> Respondents indicated interest in learning more about individual CAM modalities including herbal and botanical medicine (88%), special diet therapies (67%), meditation (65%), mind-body intervention (60%), biologic therapies (67%), traditional oriental medicine (79%), and acupuncture (71%) among others. The survey also found that 99% of respondents desired a “trustworthy internet accessible resource for checking ingredients, side effects, interactions, and evidence based efficacy data.” In response to the survey, in 2008, the AAAAI provided the *Natural Medicines Comprehensive Database (NMCD)* as a member benefit that continued through 2012 and was re-instated in October 2016.

In July 2013, a follow-up survey by the Complementary and Alternative Practices committee sought to determine the patterns of CAM use and adverse events from CAM, as well as describe practitioner approaches to patients using CAM. Using the website [www.surveymonkey.com](http://www.surveymonkey.com), 10% of randomly selected academy members (n = 529) were contacted to participate in the 30-question survey, of whom 71 members responded, a response rate of 13.4%. Respondents included a broad range of practitioners, with 34 of 67 (50.7%) respondents younger than 50

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*Abbreviations used*

AAAAI- American Academy of Allergy, Asthma, and Immunology

CAM- Complementary and alternative medicine

NMCD- Natural Medicines Comprehensive Database

years and 33 of 67 (49.2%) 50 years and older. Survey respondents were mostly male (41 of 67 male or 61.2% vs 38.8% female), and a majority were physicians with an MD, MD/PhD, or PhD degree (62 of 67 or 92.5% vs 4.4% nurse practitioner or registered nurse and others). A variety of practice settings were represented by the survey responders: Solo practice (9 of 64 or 14.1%), Single specialty group practice (22 of 64 or 34.4%), Multispecialty practice (12 of 64 or 18.8%), and Academic practice (21 of 64 or 32.8%).

When asked about their patients' use of specific CAM modalities, many respondents noted that they have patients who use natural products (Figure 1), in decreasing order: herbal medicines (67.6%), vitamins (61.9%), probiotics (57.7%), fish oil/omega-3 (57.7%), or echinacea (38.0%). Regarding their patients' use of mind and body medicine (Figure 2), many also used acupuncture (57.1%), yoga (52.1%), prayer (48.6%), meditation (41.4%), relaxation (39.7%), and deep breathing (33.3%). Among manipulative and body-based practices (see Figure E1 in this article's Online Repository at [www.jaci-inpractice.org](http://www.jaci-inpractice.org)), they noted massage use in 48.5% and spinal manipulation in 42.8% of patients. The least frequently used CAM modalities among respondents' patients (see Figure E2 in this article's Online Repository at [www.jaci-inpractice.org](http://www.jaci-inpractice.org)) were homeopathy (36.2%), home remedies (25.7%), Ayurveda (18.2%), folk care (15.4%), qi gong (12.7%), and energy (12.5%).

The next section of the survey focused on the practitioner's inclusion of CAM in the medical visit. When asked "do you routinely ask patients about CAM use?" a majority (39 of 71 respondents, or 54.9%) did not routinely ask patients about CAM use and 95.8% did not have a standard intake form to collect a CAM history. Only 31% of respondents noted that they counsel patients about scientific evidence supporting CAM therapies, safety issues, or interactions. Regarding their patients' motivations for using CAM, 89.9% noted a desire to use natural products and 75.4% used CAM because of recommendations from friends, family, or media, whereas 62.3% were fearful of conventional therapies and 58% believed CAM to be safer than conventional therapy (see Table E1 in this article's Online Repository at [www.jaci-inpractice.org](http://www.jaci-inpractice.org)). The most common indications for CAM use among patients were allergic rhinitis (76.8%), overall health and well-being (71.0%), asthma (60.9%), eczema (58.0%), food allergy (53.6%), and allergy prevention (42.0%) (see Table E2 in this article's Online Repository at [www.jaci-inpractice.org](http://www.jaci-inpractice.org)).

Among respondents, 2.9% reported recommending CAM to their patients, whereas 40.0% sometimes recommended and 57.1% did not recommend CAM. Among those who recommended CAM, 86.2% did not document verbal or written informed consent. When asked "do you refer patients to CAM qualified providers?" only 29 of 71 respondents answered the question: 3 answered "yes" (10.3%), 9 answered "sometimes" (31.0%), and 16 answered "no" (55.2%) with 1 respondent noting that he would refer if there were CAM qualified practitioners in their area. The most common indications for

recommending CAM were overall health and well-being (65.4%), nonallergy reasons (34.6%), asthma (30.8%), allergic rhinitis (23.1%), eczema (23.1%), allergy prevention (15.4%), and food allergy (7.7%) (see Table E3 in this article's Online Repository at [www.jaci-inpractice.org](http://www.jaci-inpractice.org)). A majority of practitioners who recommended CAM reported doing so due to patient preference (16 of 28, or 57.1%) or because the patients expressed desire to use natural products (15 of 28, or 53.6%) (see Table E4 in this article's Online Repository at [www.jaci-inpractice.org](http://www.jaci-inpractice.org)). Regarding the future of CAM, 47 of 68 (69.1%) practitioners themselves anticipated using CAM about the same or more than currently and 60 of 68 (88.3%) felt that patients would use the same or more CAM in the future.

Respondents were also asked about where they obtained information about CAM indications, dosing, efficacy, and safety. The major resources (used by 60 respondents) included PubMed (51.7%), scientific meetings (ie, AAAAI) (48.3%), general Google searches (38.3%), colleagues (25.0%), and the NMCD (20.0%). Notably, 2 common national resources were used only by a minority of respondents: NCCAM (National Center for Complementary and Alternative Medicine, now known as NCCIH [National Center for Complementary and Integrative Health]) (16.7%) and the Natural Standard website (5.0%) (see Table E5 in this article's Online Repository at [www.jaci-inpractice.org](http://www.jaci-inpractice.org)).

Despite patients' beliefs that CAM might be safer than conventional therapies, 59.7% of practitioners reported having seen adverse reactions from CAM. Examples of adverse events include (but were not limited to) anaphylaxis from daily ingestion of local honey, liver failure from Chinese herbal medication, failure to take medications resulting in premature death from cancer, malnutrition from extreme food avoidance secondary to antigen leukocyte antibody testing, exacerbation of eczema from natural products containing balsam of Peru leading to secondary contact dermatitis, heated rocks causing skin burns, drug reaction with eosinophilia and systemic symptoms syndrome from multiple medications taken for presumed Lyme disease, allergic reactions to echinacea, asthma exacerbation from delayed use of conventional medication, and others. Further highlighting the potential risks from CAM use, a recent study of emergency department visits estimated that 23,000 visits in the United States each year are attributed to adverse events related to dietary supplements.<sup>2</sup> Of particular concern was 80.6% of respondents (54 of 67) had patients on CAM who discontinued conventional therapy regardless of physician advice. If use of CAM is increasing along with reduced compliance with conventional treatments, our efforts to improve our patients' health may be challenged. For example, in patients with asthma, the use of CAM has been associated with poor asthma control and increased emergency department utilization.<sup>4,5</sup>

The survey concluded by asking practitioners what educational resources related to CAM would be helpful for them. The primary desired resources were internet resources (72.7%), written materials in patient-friendly language (63.6%), additional programming at the AAAAI meeting (53.0%), and teaching slides on CAM (24.2%) (see Table I).

The results of this survey include several key findings. A majority of surveyed practitioners do not routinely ask patients about CAM use and 95.8% do not have an intake form to collect a CAM history. The true incidence of CAM use among our respondents' patients may be underestimated by this survey

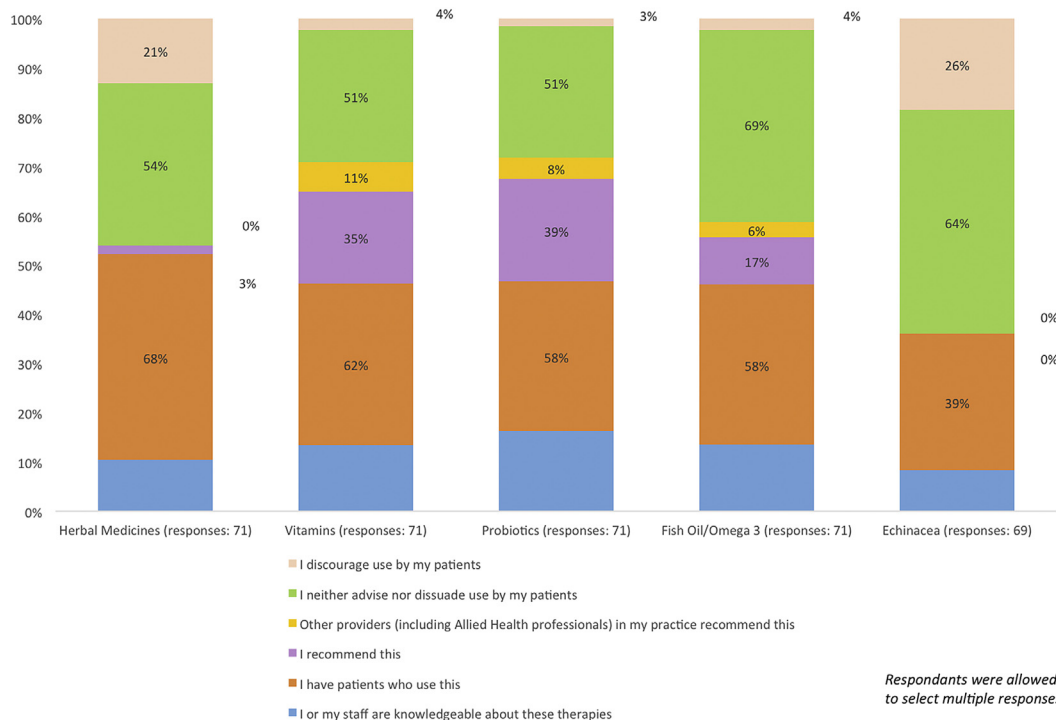


FIGURE 1. Natural products.

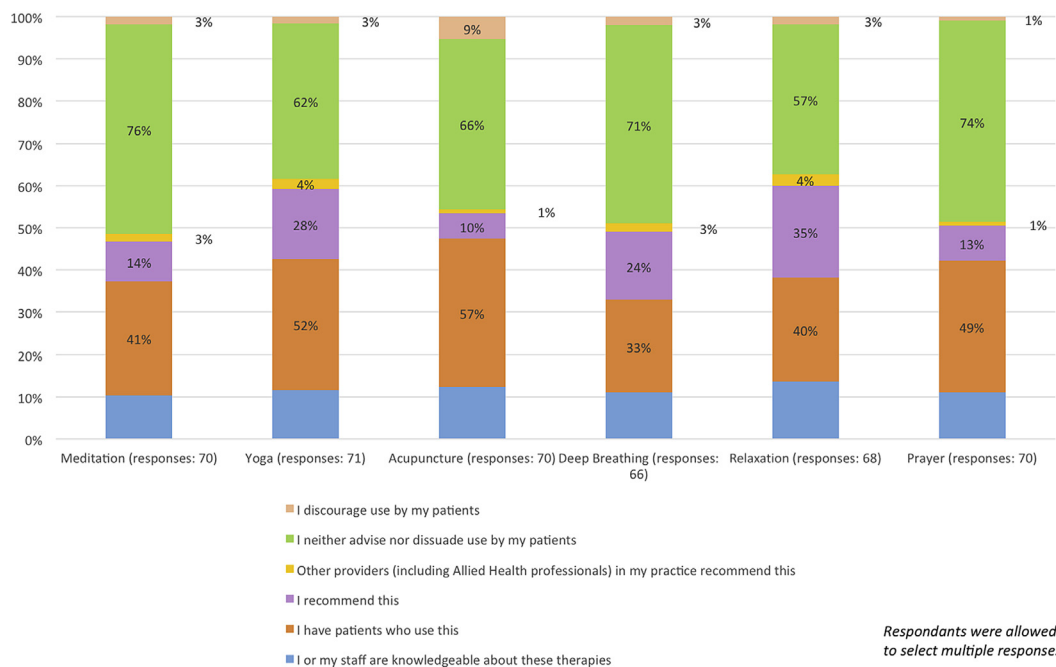


FIGURE 2. Mind and body medicine.

because patients may not disclose the use of CAM if not directly asked (and as above, a majority of respondents do not routinely ask). Most patients who use CAM desire to use natural products and obtain these recommendations from friends, families, and the media. A majority of patients believed CAM therapies to be

safer than conventional treatments. However, a majority of practitioners caring for these patients have observed adverse events from CAM use. Furthermore, 80.6% of practitioners had some patients on CAM who discontinued conventional therapy regardless of physician advice.

**TABLE I.** What educational resources related to CAM would be most helpful to you? (Select all that apply)

Answer options	Response percent	Response count
Internet resource for checking ingredients, side effects, interactions, and evidence-based efficacy data (eg, NMCD: Natural Medicines Comprehensive Database)	72.7%	48
Additional programming at the AAAAI Annual Meeting	53.0%	35
Written materials in patient-friendly language	63.6%	42
Teaching slides on CAM	24.2%	16
Other (please specify)	4.5%	3
<i>Answered question</i>		66
<i>Skipped question</i>		5

AAAAI, American Academy of Allergy, Asthma, and Immunology; CAM, complementary and alternative medicine.

It is likely that, in the future, some allergists/immunologists will choose to co-manage patients with both conventional therapy and CAM therapies. More readily available information for both the clinician and the patient is imperative to improve the care of our patients and a focus must be geared toward prevention of adverse events, including reactions to CAM itself and drug-CAM interactions. Furthermore, our training programs and

medical schools need to educate future practitioners about CAM therapies and develop guidelines on CAM use to assist clinicians in traditional medical practices. The Complementary and Alternative Practices committee of the AAAAI will continue to provide the membership with increased educational opportunities and resources in online, publication-based, and Annual Meeting programming.

### Acknowledgments

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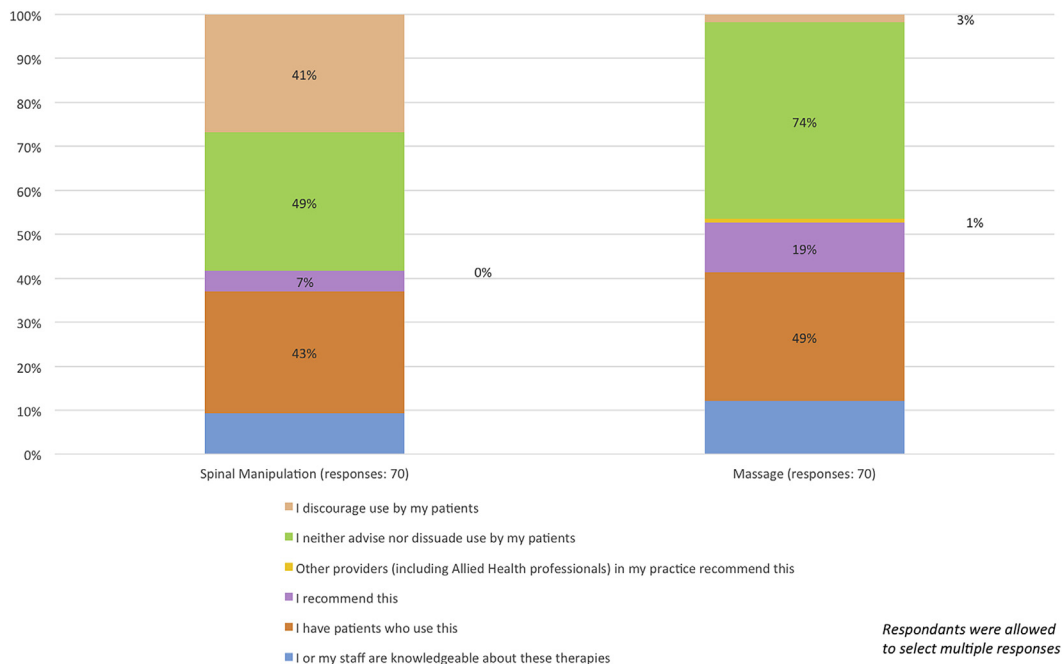


FIGURE E1. Manipulative and body-based practices.

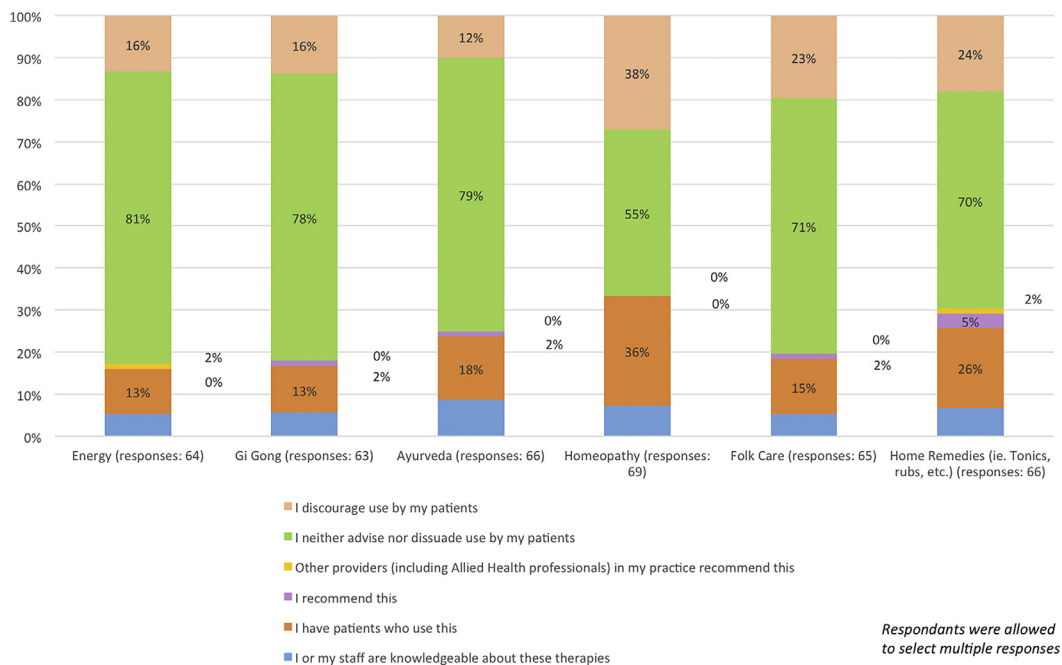


FIGURE E2. Other complementary and alternative medicine (CAM) practices.

**TABLE E1.** What are the reasons patients give for using CAM? (Select all that apply)

Answer options	Response percent	Response count
Conventional medicines are not effective	42.0%	29
Experience side effects from conventional therapy	49.3%	34
Difficult to adhere to the conventional therapies prescribed	15.9%	11
Fear of conventional therapies	62.3%	43
CAM is safer than conventional therapies	58.0%	40
Desire to use natural products	89.9%	62
Disease has bad prognosis or high disability impact	4.3%	3
Recommendations from friends, family, or media	75.4%	52
Ability to treat illness without seeing a physician	29.0%	20
Other (please specify)	11.6%	8
<i>Answered question</i>		69
<i>Skipped question</i>		2

CAM, Complementary and alternative medicine.

**TABLE E2.** For what indications are patients using CAM? (Select all that apply)

Answer options	Response percent	Response count
Asthma	60.9%	42
Allergic rhinitis	76.8%	53
Eczema	58.0%	40
Food allergy	53.6%	37
Allergy prevention	42.0%	29
Other specific disease prevention	26.1%	18
Overall health and well-being	71.0%	49
Other (please specify)	13.0%	9
<i>Answered question</i>		69
<i>Skipped question</i>		2

CAM, Complementary and alternative medicine.

**TABLE E3.** For what indications do you recommend CAM? (Select all that apply)

Answer options	Response percent	Response count
Asthma	30.8%	8
Allergic rhinitis	23.1%	6
Eczema	23.1%	6
Food allergy	7.7%	2
Allergy prevention	15.4%	4
Overall health and well-being	65.4%	17
Other (please specify)	34.6%	9
<i>Answered question</i>		26
<i>Skipped question</i>		45

CAM, Complementary and alternative medicine.

**TABLE E4.** If you recommend CAM, what are the reasons for choosing to use this? (Select all that apply)

Answer options	Response percent	Response count
Conventional medicine was ineffective or had unsatisfactory outcomes	32.1%	9
Patient experienced side effects or intolerance to conventional therapy	25.0%	7
Patient had difficulties adhering to conventional therapies prescribed	7.1%	2
Patient fear of conventional therapies	32.1%	9
Patient belief that CAM is safer than conventional therapies	21.4%	6
Patient expressed desire to use natural products	53.6%	15
Disease has bad prognosis or high disability impact	0.0%	0
Patient preference	57.1%	16
Other (please specify)	42.9%	12
<i>Answered question</i>		28
<i>Skipped question</i>		43

CAM, Complementary and alternative medicine.

**TABLE E5.** Where do you get information regarding general information, indications, dosing, efficacy, and/or safety of CAM? (Select all that apply)

Answer options	Response percent	Response count
PubMed	51.7%	31
NCCAM (National Center for Complementary and Alternative Medicine) website	16.7%	10
PDR (Physician's Desk Reference)	6.7%	4
NMCD (Natural Medicines Comprehensive Database)	20.0%	12
Natural Standard	5.0%	3
Lexi-Natural Products	3.3%	2
Scientific meetings (ie, AAAAI)	48.3%	29
Colleagues	25.0%	15
General Google search	38.3%	23
Other (please specify)		8
<i>Answered question</i>		60
<i>Skipped question</i>		11

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