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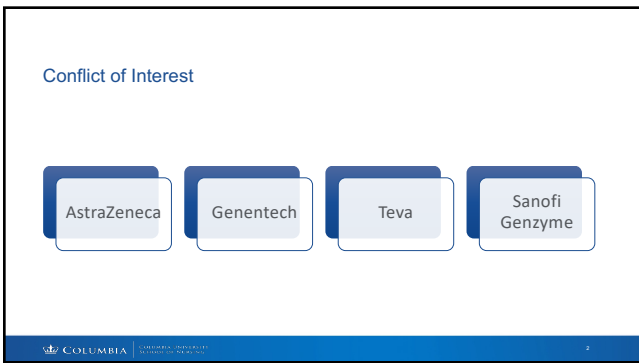
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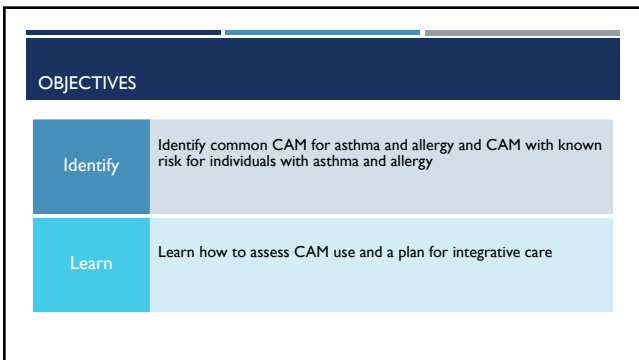
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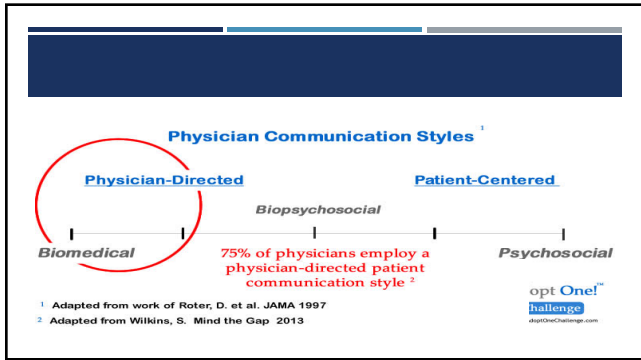
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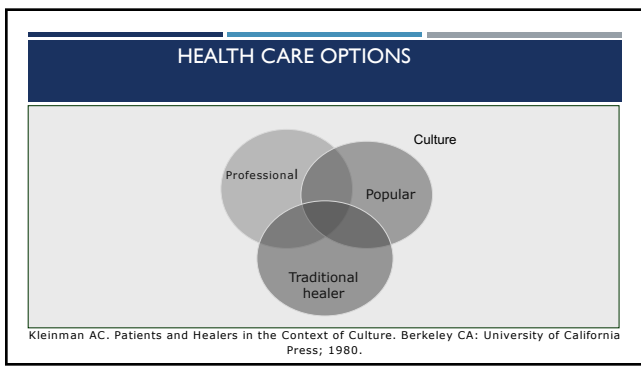
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**CAM**

- Diverse group of practices and products
- 80% of the world's healthcare
- Criticized for not being evidence-based

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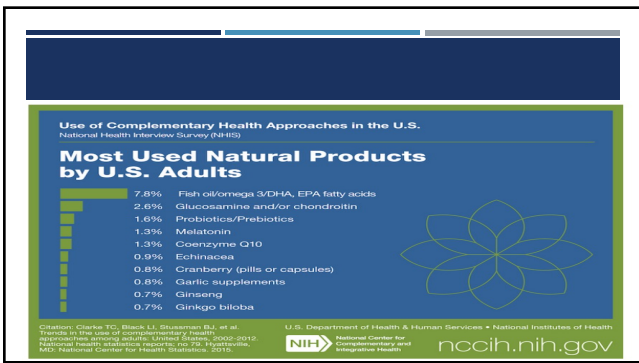
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**PROBIOTICS**

- Increasing evidence that disturbances in gut microbial composition play a role in the pathophysiology of immune-mediated disorders
  - Prebiotics are foods that act as food for human microflora
  - Probiotics are "live microorganisms, which when administered in adequate amounts, confer a health benefit on the host"<sup>1</sup>
    - lactobacilli
    - bifidobacteria
    - yeast *Saccharomyces boulardii*
  - Synbiotics combination of prebiotics and probiotics

I.WHO

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**PROBIOTICS FOR PREVENTION OF ALLERGIC DISEASE**

- Meta-analyses suggest a benefit of probiotics in reducing the development of eczema in at-risk infants
- Effect is moderate
- Only probiotic strain with reproducible data is *Lactobacillus rhamnosus* GG (LGG)

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**PROBIOTICS FOR PTREATMENT OF ALLERGIC DISEASE**

- No definitive evidence that prebiotics, probiotics, or synbiotics have efficacy in the treatment of allergic dz.
- Two meta-analyses reported a beneficial effect of probiotics in the AR.
- Ongoing studies evaluating prebiotics and synbiotics show some promise
- More study is needed

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**OMEGA 3**

- Diets rich in anti-inflammatory omega-3 fatty acids proposed to be beneficial in the treatment of asthma
- Very difficult to study the impact of dietary changes upon the course of asthma and most studies show no effect

Monteleone CA, Sherman AR. Arch Intern Med 1997; 157:23; McKeever TM, Britton J. Am J Respir Crit Care Med 2004; 170:725; Martineau AR, McLaughlin BD, Hooper RL, et al. Thorax 2015; 70:451

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### BUTTERBUR (PETASITES HYBRIDUS) FOR AR

- Extracts from the root may alter the leukotriene pathway
- In 3 small RCTs butterbur compared favorably with standard doses of non-sedating antihistamines (cetirizine, 10 mg daily and fexofenadine, 180 mg daily) [1-3]
- Parts of the butterbur plant can contain compounds that have hepatotoxic and potentially mutagenic and carcinogenic effects in humans [4]



1. Schapowal A, Study Group. Phytother Res 2005; 19:530; 2. Lee DK, Gray RD, Robb FM, et al. Clin Exp Allergy 2004; 34:646; 3. Schapowal A, Petasites Study Group. BMJ 2002; 324:144; 4. 34. WHO Pharmaceuticals Newsletter, 2012, No 4.

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### GINSENG FOR AR

**THE REASON WHY SIX-YEAR RED GINSENG IS THE BEST!**

The full ripe period red ginseng is 6-year old.

The red ginseng's full ripe period is 6-year old.

When it becomes 6 years old, the stem of ginseng is golden yellow and thickly covered with wrinkles.

A 6-year old ginseng is growing because it goes on growing 6th.

The medicinal quality of red ginseng is made at 6-year old ginseng.

- RCT N = 59 fermented red ginseng vs. placebo 4 wks
- Significant improvement in nasal congestion, rhinitis QOL
- Total serum IgE increased in the control group; treatment group unchanged

Jung JW, Kang HR, Ji GE, et al. Allergy Asthma Immunol Res 2011; 3:103

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### CAPSAICIN FOR AR

- Acts on rhinitis by desensitizing nasal nerve fibers and reducing nasal
- RCT N = 42 of 42 patients with allergic and nonallergic rhinitis, an intranasal solution of capsaicin and eucalyptol 2x BID vs placebo
- Significantly greater reduction in total nasal symptom score
- No change in sneezing, rhinorrhea, PND



nasal congestion  
nasal pain and pressure  
headache,

Bernstein JA, Davis BP, Picard JK, et al. A randomized, double-blind, parallel trial comparing capsaicin nasal spray with placebo in subjects with a significant component of nonallergic rhinitis. Ann Allergy Asthma Immunol 2011; 107:171.

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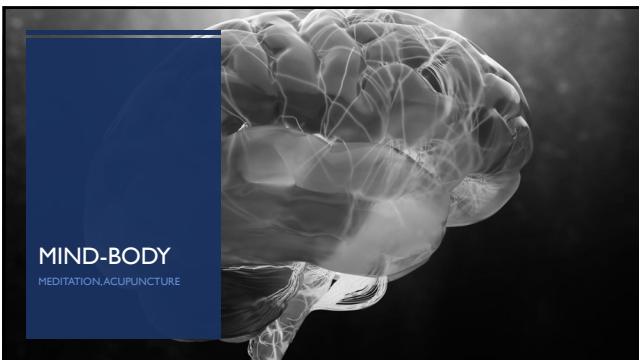
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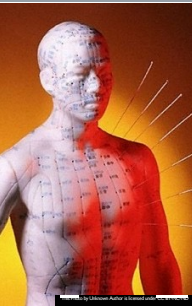
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**ACUPUNCTURE FOR ASTHMA AND ALLERGIC CONJUNCTIVITIS**

- Imbalance of qi
- A systematic review of 11 RCTs determined that acupuncture was not associated with significant clinical improvements in asthma [1]
- Studies of acupuncture for the treatment of allergic rhinitis have shown mixed results, with most rigorous showing very modest clinical benefit [2]
- 2015 practice guideline suggested potential use of acupuncture for allergic rhinitis or allergic conjunctivitis included limited data supporting its use [3]



1. McCarney RW, Brinkhaus B, Lasserson TJ, Linde K. Cochrane Database Syst Rev 2004;:CD000008
2. Lee MS, Pittler MH, Shin BC, et al. Ann Allergy Asthma Immunol 2009; 102:269-19
3. Seidman MD, Gurgel RK, Lin SY, et al. Otolaryngol Head Neck Surg 2015; 152:51.

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**BODY-BASED PRACTICES**

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**BODY-BASED PRACTICES**

- Massage
  - One study of parents giving massage therapy to their children for 20 minutes QD x 1 mo [1]
  - Children 4 to 8 years of age had better results than those between 9 to 14 years
    - Younger has attitude toward asthma and pulmonary function improve
- Chiropractic care
  - 80 children received either active spinal manipulation or a simulated technique [2].
  - At two and four months of therapy no differences in morning peak flow, symptoms, use of beta-agonists, quality of life measurements, spirometric measurements, or airway responsiveness

1. Field T, Henteloff T, Hernandez-Reif M, et al. J Pediatr 1998; 132:85-93
2. Balon J, Aker PD, Crowther ER, et al. N Engl J Med 1998; 339:1013.

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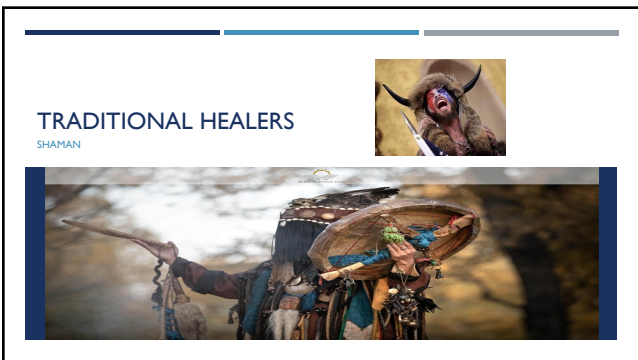
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# WHOLE MEDICAL SYSTEMS

TRADITIONAL  
CHINESE  
MEDICINE  
(TCM),  
AYURVEDA,  
HOMEOPATHY,  
KAMPO,  
HANBANG

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## HOMEOPATHY




- Two tenets
  - "like cures like"
  - "potentization" via "succussions"
- Homeopathic preparations begin with minerals, plants, or animal substances that are
  - Pulverized,
  - mixed with a water-alcohol solution,
  - potentized, and
  - applied to a sucrose pill to dry

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## HOMEOPATHY FOR ASTHMA

- FDA has issued a warning to consumers not to rely on homeopathic products for asthma

### FDA warns consumers about the potential health risks of over-the-counter asthma products labeled as homeopathic

[Facebook](#) [Twitter](#) [LinkedIn](#) [Email](#) [Print](#)

[en Español \(PDF - 75KB\)](#)

The U.S. Food and Drug Administration is warning consumers not to rely on asthma products labeled as homeopathic that are sold over-the-counter (OTC). These products have not been evaluated by the FDA for safety and effectiveness.

**Asthma is a serious, chronic lung condition.** If asthma is not appropriately treated and managed, patients may have shortness of breath and coughing, and could be at risk for life-threatening asthma attacks that may require emergency care or hospitalization. Although there is no cure for asthma, there are many prescription asthma

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### TCM FOR ASTHMA AND AR

- TCM for allergic rhinitis
  - Meta-analysis of 12 RCTs<sup>1</sup>
    - TCM significantly improved quality of life compared with placebo
    - No difference in symptoms of itchy nose, sneezing, or total nasal symptom scores
  - More study needed
- TCM for asthma Mai Men Dong Tang (mMMDT), Ding Chuan Tang STA-1 antiasthma herbal medicine intervention, augmented Yu Ping Feng San (aYPPFS), Cordyceps sinensis, Bu Shen Fang Chuan, Bu Shen Yi Qi<sup>2</sup>
  - ASHMI has received investigational new drug approval in the United States.
- Meta-analysis of 29 RCTs<sup>2</sup>
  - Positive effects on lung function, asthma control, rates of exacerbations and medication usage
  - Overall quality evidence was low, with high risk of bias in most studies



1. Zhang X, Lan F, Zhang Y, Zhang L. Allergy Asthma Immunol Res 2019;3:249-257.  
2. Zheng S, Wu L, Zhang AL, et al. J Asthma 2016; 53:650

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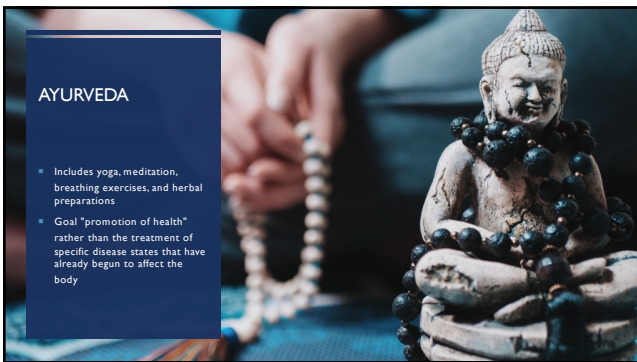
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### AYURVEDA

- Includes yoga, meditation, breathing exercises, and herbal preparations
- Goal "promotion of health" rather than the treatment of specific disease states that have already begun to affect the body



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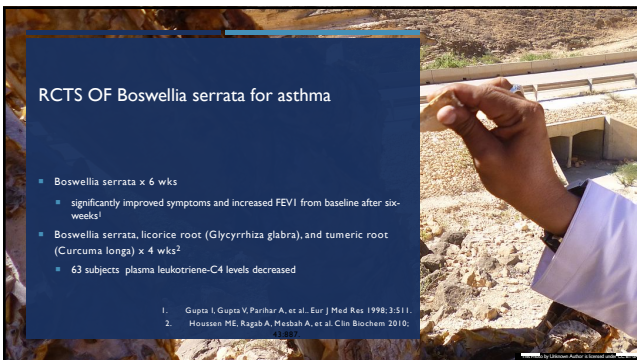
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### RCTS OF Boswellia serrata for asthma

- Boswellia serrata x 6 wks
  - significantly improved symptoms and increased FEV1 from baseline after six-weeks<sup>1</sup>
- Boswellia serrata, licorice root (Glycyrrhiza glabra), and tumeric root (Curcuma longa) x 4 wks<sup>2</sup>
  - 63 subjects plasma leukotriene-C4 levels decreased

1. Gupta I, Gupta V, Parihar A, et al. Eur J Med Res 1998; 3:511.  
2. Housien ME, Ragab A, Mostafa A, et al. Clin Biochem 2010;



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**AYURVEDIC HERBS FOR ALLERGIC RHINITIS**

- Mixture of seven Indian herbs
  - Albizia lebbeck, Terminalia chebula, T. bellerica, Phyllanthus emblica, Piper nigrum, P. longum, and Zingiber officinale)
    - RCT N = 545 with AR
    - Significant improvement in congestion, rhinorrhea, and sneezing at 6 and 12 weeks

Saxena VS, Venkateshwarlu K, Nadig P, et al. Int J Clin Pharmacol Res 2004; 24:79.

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**BEHAVIORAL TREATMENTS**  
ALEXANDER BUTEYKO  
PRANAYAMAS, BIOFEEDBACK

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**BREATHING TECHNIQUES IN ASTHMA**

- RCT Buteyko breathing N = 90
  - fewer symptoms
  - decrease in the use of inhaled bronchodilators

Cooper S, Osborne J, Newton S, et al. Effect of two breathing exercises (Buteyko and pranayama) in asthma: a randomised controlled trial. Thorax 2003; 58:674.

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**ENVIRONMENTAL TECHNIQUES**  
SPELEOTHERAPY AND HALOTHERAPY



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**SPELEOTHERAPY AND HALOTHERAPY**

- Speleotherapy no evidence from RCTs effect greater than placebo [1]
- Halotherapy
  - RCT 29 patients with moderate asthma halotherapy or placebo inhalation 5 x a week x 2 weeks [2]
  - Bronchial responsiveness decreased slightly in the halotherapy group.
  - PEF and rescue bronchodilator use did not differ between active and placebo groups [3]

1. Beaman S, Falkenbach A, Fainburg G, Linde K. Speleotherapy for asthma. *Cochrane Database Syst Rev* 2001; CD001741.

2. Hedman J, Rigg T, Stenroos J, Haakola T. The effect of salt chamber treatment on bronchial hyperresponsiveness in asthmatics. *Astergy* 2004; 61:405.

3. Sandell J, Hedman J, Saarimäki K, Haakola T. Salt chamber treatment as medicine in treating eosinophilic inflammation in asthma. *Allergy* 2013; 68:145.



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**FOLK MEDICINES**

REMEDIES INCLUDING BRAYER, HEALING TOUCH OR LAYING ON OF HANDS, CHIRAL, HIRBAL, TRAX OR FRACTURE, FROG'S SPINAL



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**ETHNIC MNEMONIC**

<b>Explanation</b> -how do you explain your illness?	<b>Treatment</b> -what have you tried?	<b>Healers</b> -have you sought care from other (traditional) healers?
<b>Negotiate</b> -until mutually acceptable plan is reached	<b>Intervention</b> -mutually acceptable	<b>Collaboration</b> -with patient, family and healers

Levin, Like & Gottlieb (2000). Patient Care 34 (9), 188-189

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**ETH QUESTIONS**

**Explanation:**

- What most concerns you about this problem?
- What do you think may be the reason that you have these symptoms?
- What do your friends, family, and others say about these symptoms?
- What have you heard about these symptoms from TV/radio/newspaper?
- What do you do to stay healthy?
- What do you do to get healthy when you are sick?
- How do you explain your illness?
- What does "a healthy you" look like?
- What family traditions do you have regarding staying healthy or getting healthy when sick?

**Treatment:**

- What kinds of medications, home remedies, or other treatments have you tried for this illness?
- What medications/home remedies/other treatments have worked?
- What has not worked?
- What did you try instead?
- Tell me about anything you eat, drink, or do on a regular basis to stay healthy.
- Tell me about anything you avoid eating, drinking, or doing on a regular basis to stay healthy.
- Are there any treatments that you have heard about that you want to try?
- What kind of treatment are you seeking from me?

**Healers:**

- Have you sought any advice from alternative or folk healers for help with your problems?
- Have you sought any advice from friends or family for help with your problems?
- Have you sought any advice from any other people who are not doctors for help with your problems?

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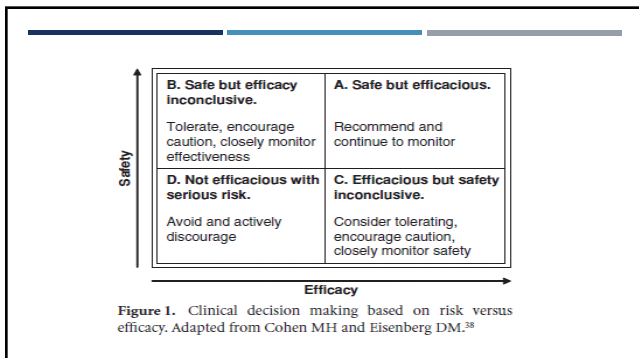
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TAKEAWAYS

- Integrative medicine is patient-centered care that focuses on the whole person; is informed by evidence; and makes use of all appropriate therapeutic approaches, healthcare professionals, and disciplines to promote optimal health and healing
- Evidence supporting the use of CAM to improve asthma is limited
  - Most studies suggest that such an effect, if present, is small.  
The risks and benefits of such an approach should be considered on a case-by-case basis
- Studies of acupuncture for AR have shown modest benefit
- There are several herbal therapies that have demonstrated efficacy for AR, including Ayurvedic mixes, butterbur, and Tinospora cordifolia
- Nasal sprays consisting of dilute solutions of capsaicin have shown efficacy for AR when administered several times daily

Bielory, L UTD 2020 Complementary and alternative therapies for allergic rhinitis and conjunctivitis  
Martin, RJ UTD 2021 Complementary, alternative, and integrative therapies for asthma

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