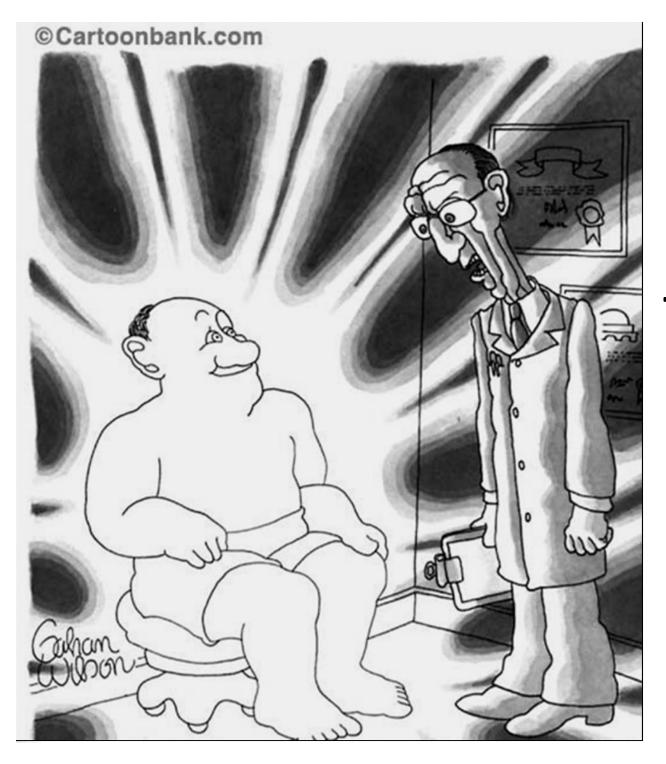
# Yoga for Low Back Pain

2015 Work-Related Injuries: New Challenges & New Solutions

Rob Saper MD MPH
BMC Department of Family Medicine &
Program for Integrative Medicine & Health Disparities



"You've been fooling around with alternative medicine, haven't you?"

#### Integrative Medicine

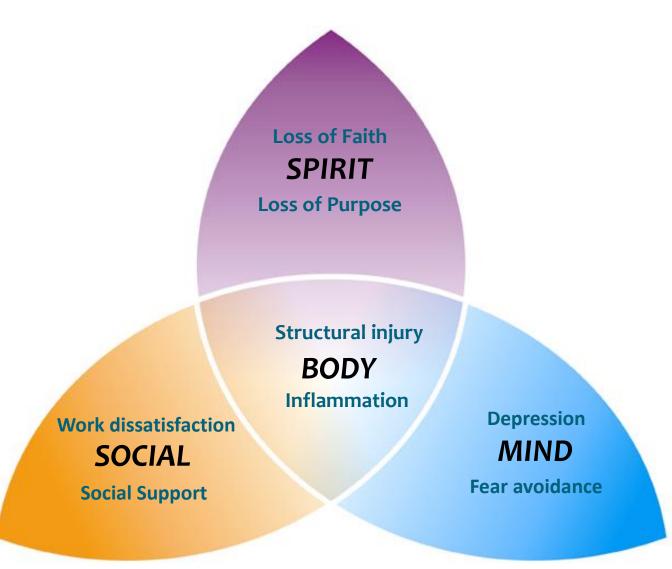
Integrative medicine and health reaffirms the importance of the relationship between practitioner and patient, focuses on the whole person, is informed by evidence, and makes use of all appropriate therapeutic and lifestyle approaches, healthcare professionals and disciplines to achieve optimal health and healing.



#### **Low Back Pain**

- Common expensive injury for workers
- Poorly understood
- Treatments often not satisfactory

#### Low Back Pain: Biopsychosocial-Spiritual Model



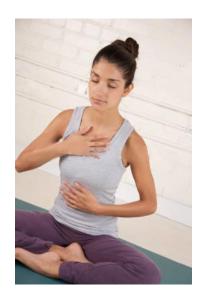
## Yoga

- Yoga originated in India over 2000 years ago
- Originally complex system of spiritual, moral, and physical branches to attain "self-realization"
- Now used more for fitness, wellness, stress reduction, & health

## Elements of Hatha Yoga



Postures Asanas

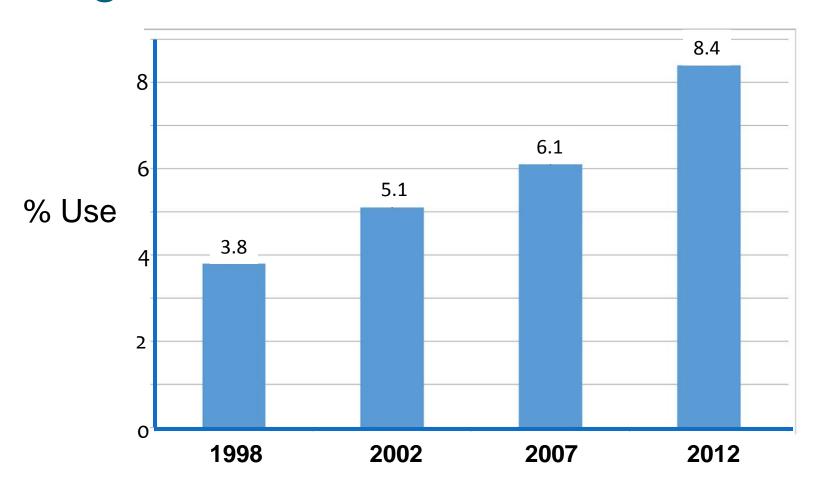


Breathing Pranayama

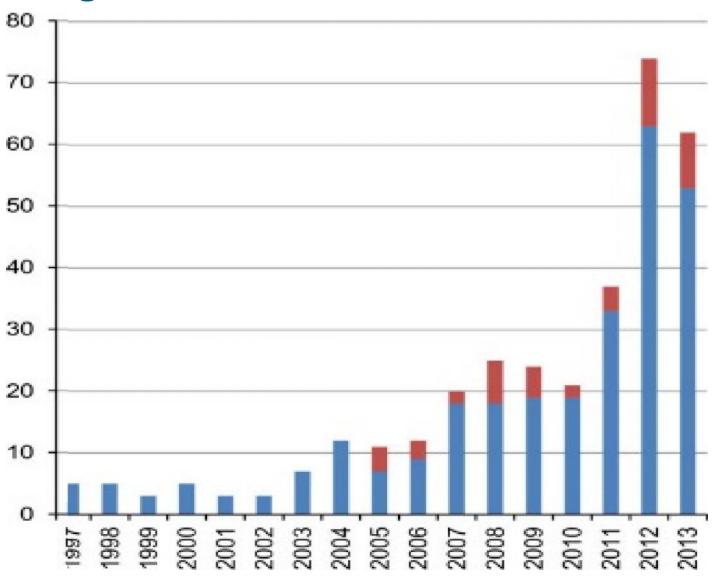


**Meditation** 

# Yoga Use in U.S. Adults 1998-2012



## Yoga RCTs Published 1997-2013



Cramer et al, BMC CAM 2014

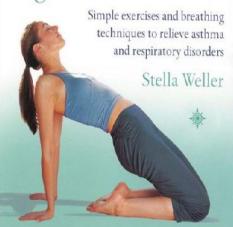
## Growing Evidence for Yoga

- Pain (Bussing, J Pain 2012)
- Inflammatory markers (Bower, Psychoneuroendo 2014)
- Psychiatric disorders (Cabral, CNS Disorders 2011)
- Quality of life (Oken, Neurology 2004)
- Spirituality (Park, J Health Psychol 2014)

#### Yoga and Psychotherapy The Evolution of Consciousness

Swami Rama Rudolph Ballentine, M.D. Swami Ajaya, Ph.D.

#### Yoga Beats Asthma



With a foreword by Marie E. Faughnan, M.D., F.R. C.P.C., Division of Respiratory Medicine, St Michael's Hospital, Toronto

#### RECOVERY

A PRACTICAL GUIDE FOR CHRONICALLY ILL,
INJURED, AND POST-OPERATIVE PEOPLE

YOGA



SAM DWORKIS

#### Yoga for the Special Child

A Therapeutic Approach for Infants and Children with

- Down Syndrome
- Cerebral Palsy



Sonia Sumar

#### YOGA AND CANCER



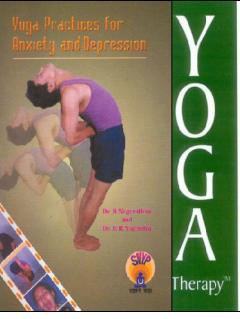
Dr. HIR NAGENDRA Dr. RINAGARATHNA Dr. SHIPLEY TELLES



#### ANANDA YOGA®



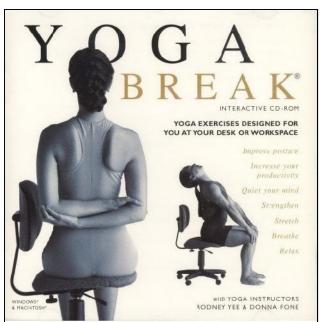


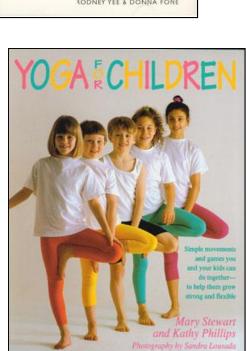


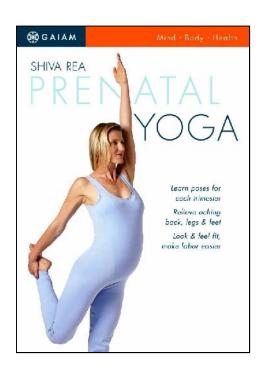
# Overcoming Insomnia

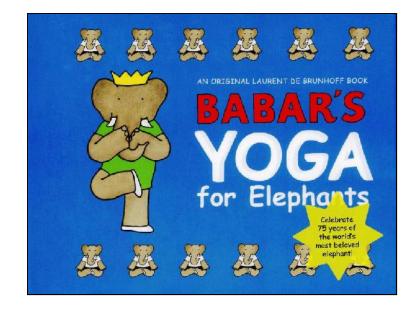


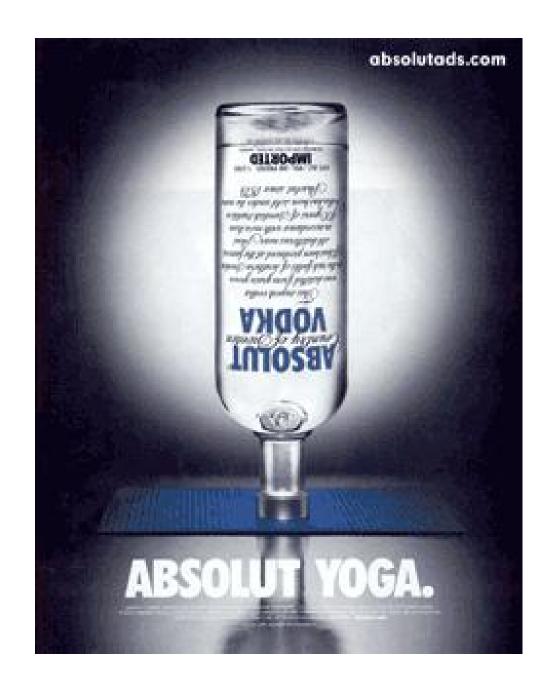
Peter Van Houten, M. D. & Rich Mc Cord, Ph.D.











# Why Yoga for Chronic LBP?

Therapies that address body, mind, social, and spiritual dimensions of an injury may be more helpful than therapies that address only one dimension.

#### Meta-analysis of Yoga for LBP

| Follow-up duration | Outcomes                    | Number of trials (n) | Standardized mean difference (95% CI) |
|--------------------|-----------------------------|----------------------|---------------------------------------|
| Short-term         | Pain                        | 6 (584)              | −0.48 (−0.65 to −0.31)                |
|                    | Back-specific<br>disability | 8 (689)              | −0.59 (−0.87 to −0.30)                |
| Long-term          | Pain                        | 5 (564)              | −0.33 (−0.59 to −0.07)                |
|                    | Back-specific<br>disability | 5 (574)              | −0.35 (−0.55 to −0.15)                |

Cramer H et al. A systematic review and meta-analysis of yoga for low back pain. Clin J Pain. 2013

Joint American College of Physicians – American Pain Society LBP Clinical **Practice** Guidelines

|                             | Low Back Pain  Duration                    | Acute < 4 Weeks | Subacute<br>or Chronic<br>> 4 Weeks |
|-----------------------------|--|-----------------|-------------------------------------|
| Self-<br>care               | Advice to remain active                    | •               |                                     |
|                             | Books, handout                             | •               |                                     |
|                             | Application of superficial heat            | •               |                                     |
| Pharmacologic<br>therapy    | Acetaminophen                              | •               | 1.01                                |
|                             | NSAIDs                                     | •               | •                                   |
|                             | Skeletal musde relaxants                   | •               |                                     |
|                             | Antidepressants (TCA)                      |                 | 100                                 |
|                             | Benzodiazepines                            | •               | (•)                                 |
|                             | Tramadol, opioids                          | •               | •                                   |
| Nonpharmacologic<br>therapy | Spinal manipulation                        | •               |                                     |
|                             | Exercise therapy                           |                 | •                                   |
|                             | Massage                                    |                 | •                                   |
|                             | Acupuncture                                |                 |                                     |
|                             | Yoga                                       |                 |                                     |
|                             | Cognitive-behavioral therapy               |                 | (1.0)                               |
|                             | Progressive relaxation                     |                 |                                     |
|                             | Intensive interdisciplinary rehabilitation |                 | •                                   |

interventions (Neconfinentiations 2, 0, 7)



#### **Qualitative Data**

It actually takes you to a place where some days there is absolutely no pain.

People can push those buttons as they used to, they can't make you angry, because now you have something that keeps you calm.

I felt good because I was doing something, not sitting around waiting for a diagnosis, not taking another pill.

#### Take Home Points

- Structured yoga programs are evidence-based for chronic LBP
- Similar effect size as PT
- May be appealing to some patients
- Demonstration projects and research should be attempted in occupational health settings

#### Thank You!

