

15^e congrès SOINS SOMATIQUES & DOULEUR en SANTÉ MENTALE

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L'impact du yoga sur la douleur en santé mentale.

The Therapeutic Potential of Yoga for Chronic Pain Conditions and Depression

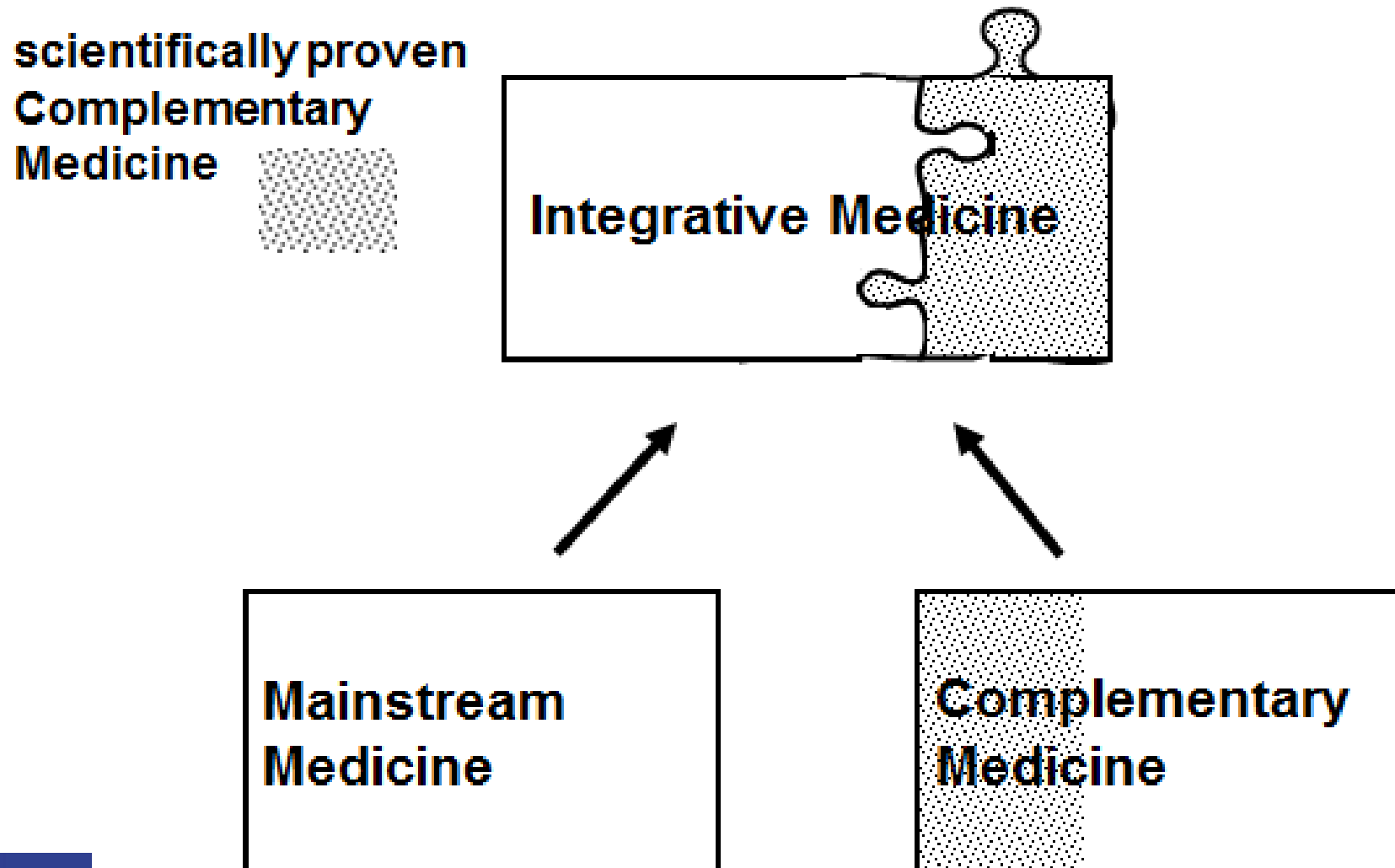
Prof. Dr. Gustav Dobos

Department of Internal and Integrative Medicine, Kliniken Essen-Mitte, Faculty of Medicine,
University of Duisburg-Essen, Essen, Germany

**Chair for Complementary and Integrative Medicine at
University Duisburg-Essen, Germany
&
Model Institution for Integrative Medicine in Germany,
which is supported by the state**



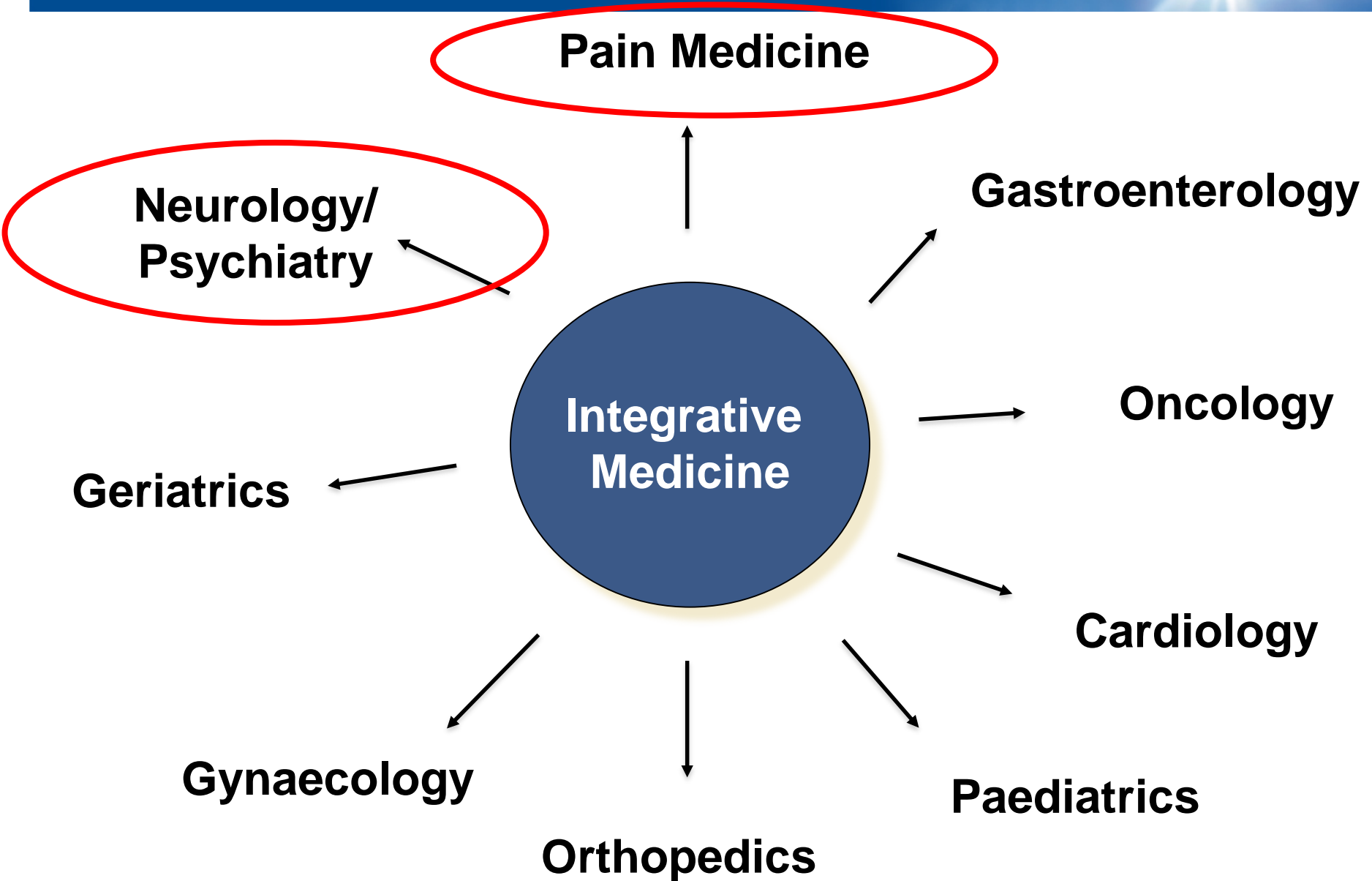
What is the official definition for *Integrative Medicine*?



Potential fields of *Integrative Medicine*

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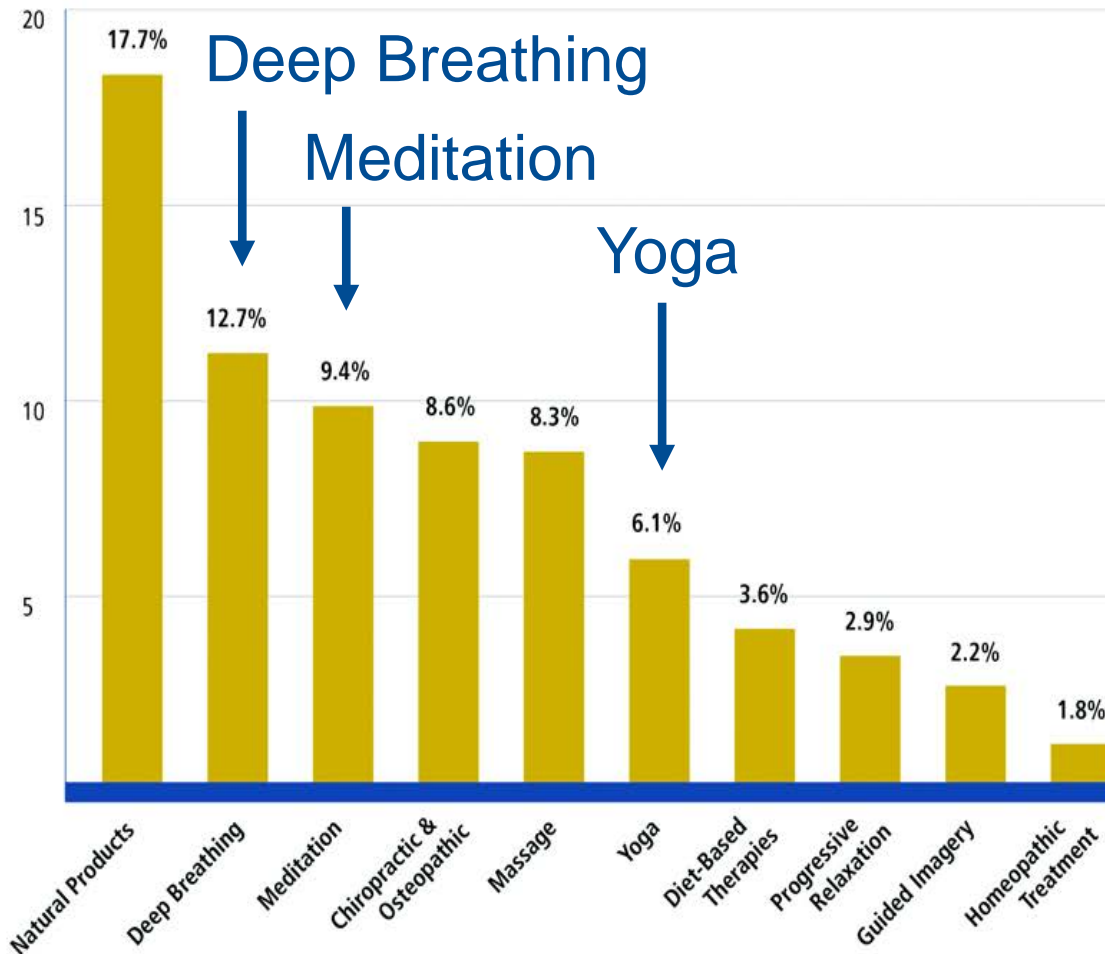




Yoga world wide ...



10 Most Common CAM Therapies Among Adults - 2007

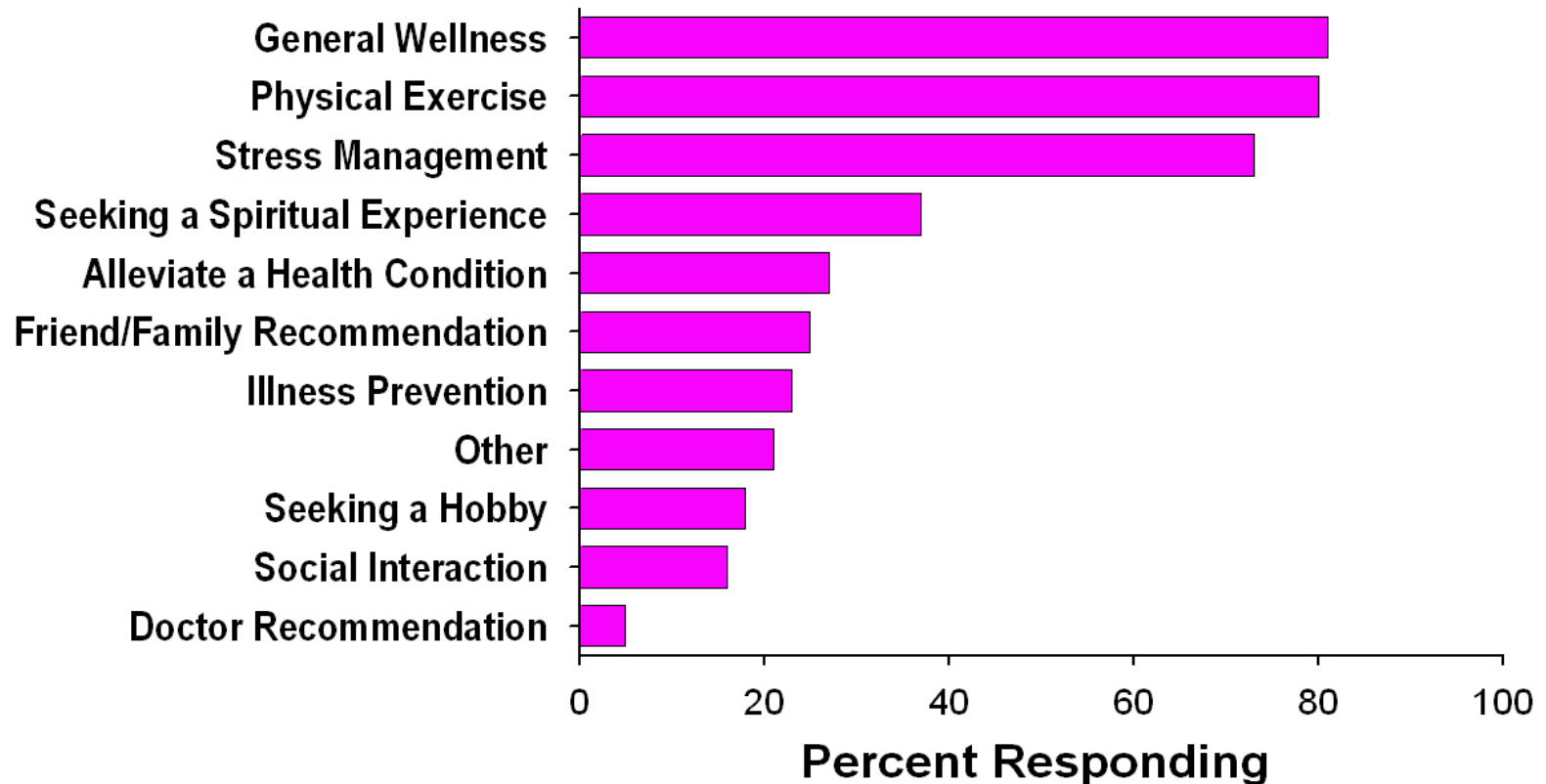


Therapies with significant increases between 2002 and 2007 are

	2002	2007
Deep breathing	11.6%	12.7%
Meditation	7.6%	9.4%
Massage	5.0%	8.3%
Yoga	5.1%	6.1%

From: *Complementary and Alternative Medicine Use Among Adults and Children: United States, 2007*, Barnes PM, Bloom B, Nahin R. CDC National Health Statistics Report #12, 2008.

Reasons for Practice in a Beginners Program



From: *Yoga in the real world: Perceptions, motivators, barriers, and patterns of use*, Quilty MT, Saper RB, Goldstein R, Khalsa SBS, *Global Advances in Health and Medicine*, 2:44-49, 2013.

Yoga for Chronic Pain

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Actor

Peggy Cappy
Kanta Barrios
Gary Kraftsow
Rodney Yee
Barbara Benagh



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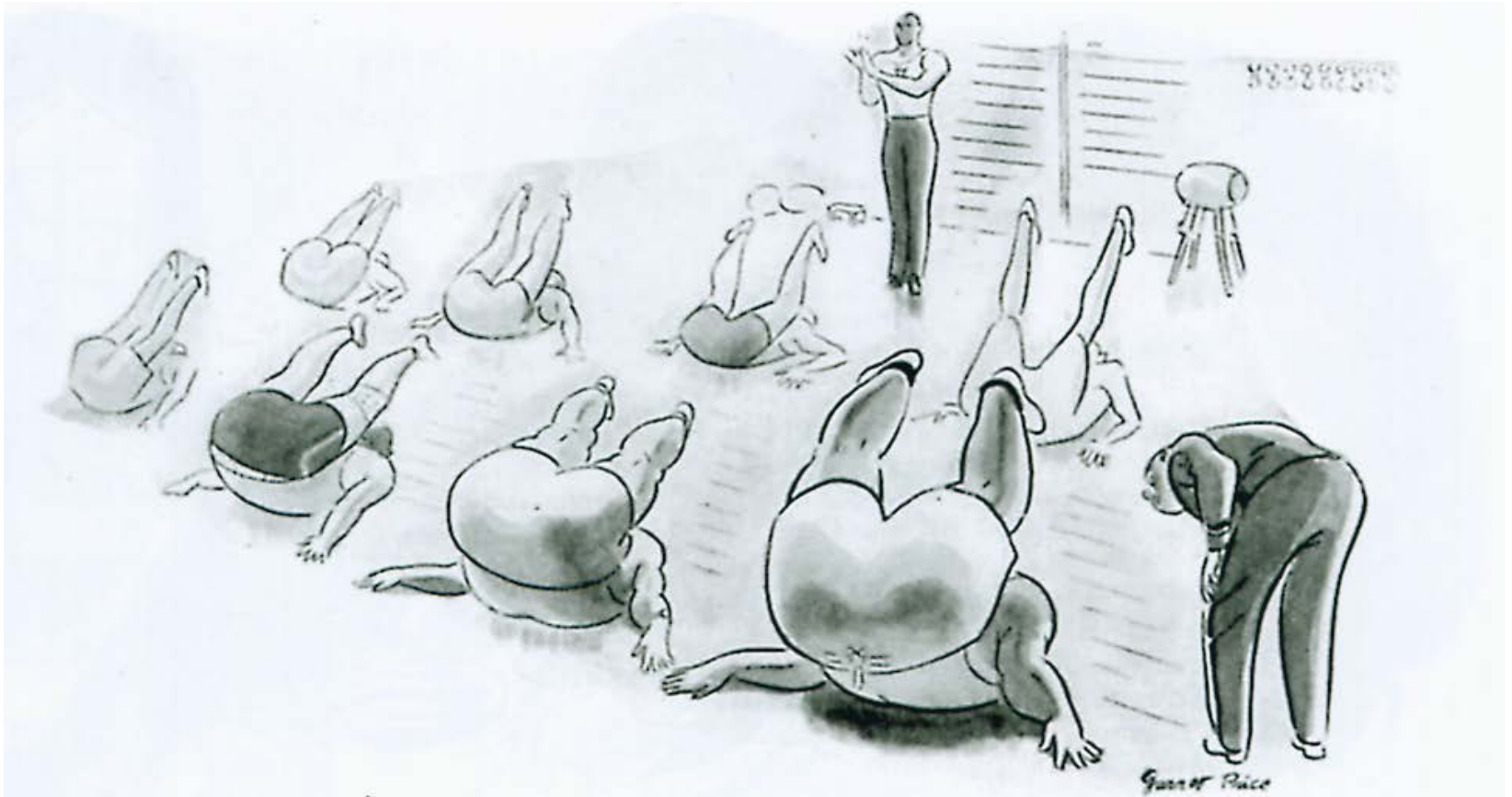
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Yoga for Chronic Low Back Pain



Yoga for Chronic Low Back Pain

Sherman et. al. Ann Intern Med 2005



Annals of Internal Medicine

Comparing Yoga, Exercise, and a Self-Care Book for Chronic Low Back Pain

A Randomized, Controlled Trial

Karen J. Sherman, PhD, MPH; Daniel C. Cherkin, PhD; Janet Erro, RN, MN, PNP; Diana L. Miglioretti, PhD; and Richard A. Deyo, MD, MPH

Background: Chronic low back pain is a common problem that has only modestly effective treatment options.

Objective: To determine whether yoga is more effective than conventional therapeutic exercise or a self-care book for patients with chronic low back pain.

Design: Randomized, controlled trial.

Setting: A nonprofit, integrated health care system.

Patients: 101 adults with chronic low back pain.

Intervention: 12-week sessions of yoga or conventional therapeutic exercise classes or a self-care book.

Measurements: Primary outcomes were back-related functional status (modified 24-point Roland Disability Scale) and "bothersomeness" of pain (11-point numerical scale). The primary time point was 12 weeks. Clinically significant change was considered to be 2.5 points on the functional status scale and 1.5 points on the bothersomeness scale. Secondary outcomes were days of restricted activity, general health status, and medication use.

Results: After adjustment for baseline values, back-related function in the yoga group was superior to the book and exercise groups at 12 weeks (yoga vs. book: mean difference, -3.4 [95% CI, -5.1 to -1.6] [$P < 0.001$]; yoga vs. exercise: mean difference, -1.8 [CI, -3.5 to -0.1] [$P = 0.034$]). No significant differences in symptom bothersomeness were found between any 2 groups at 12 weeks; at 26 weeks, the yoga group was superior to the book group with respect to this measure (mean difference, -2.2 [CI, -3.2 to -1.2]; $P < 0.001$). At 26 weeks, back-related function in the yoga group was superior to the book group (mean difference, -3.6 [CI, -5.4 to -1.8]; $P < 0.001$).

Limitations: Participants in this study were followed for only 26 weeks after randomization. Only 1 instructor delivered each intervention.

Conclusions: Yoga was more effective than a self-care book for improving function and reducing chronic low back pain, and the benefits persisted for at least several months.

Ann Intern Med. 2005;143:849-856.

For author affiliations, see end of text.

ClinicalTrials.gov identifier: NCT00056212

www.annals.org

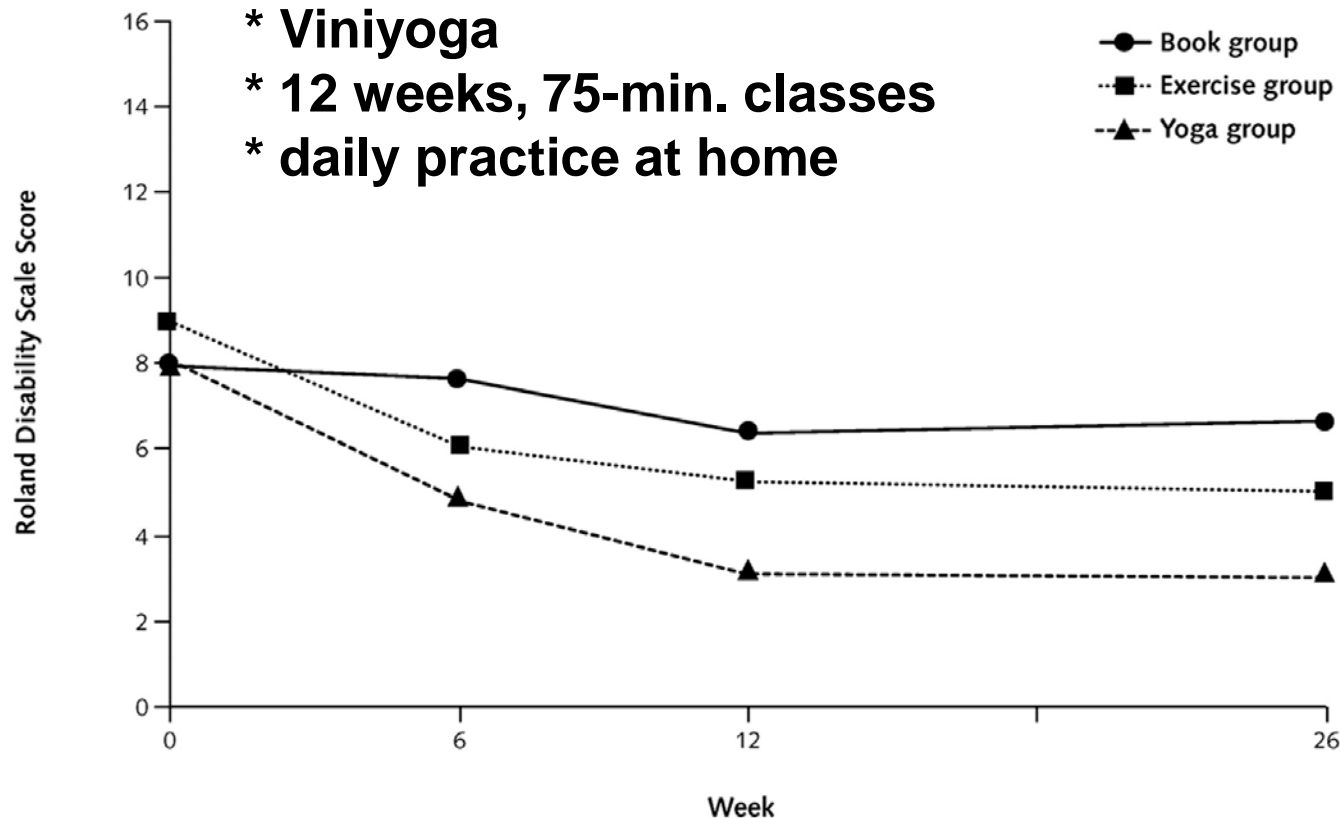


Yoga for Chronic Low Back Pain

Sherman et. al. Ann Intern Med 2005

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Sherman, K. J. et. al. Ann Intern Med 2005;143:849-856

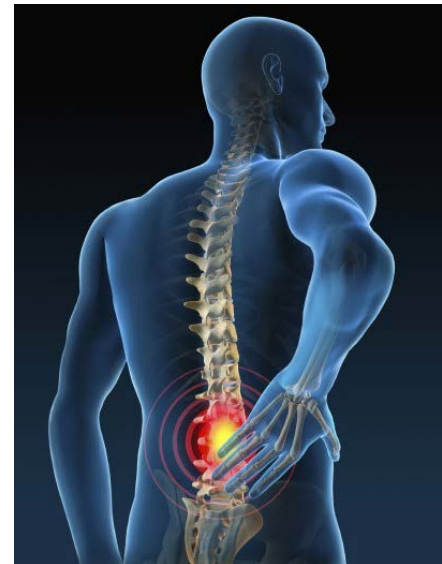
Annals of Internal Medicine

REVIEW ARTICLE

A Systematic Review and Meta-analysis of Yoga for Low Back Pain

Holger Cramer, PhD, Romy Lauche, PhD, Heidemarie Haller, MSc, and Gustav Dobos, MD

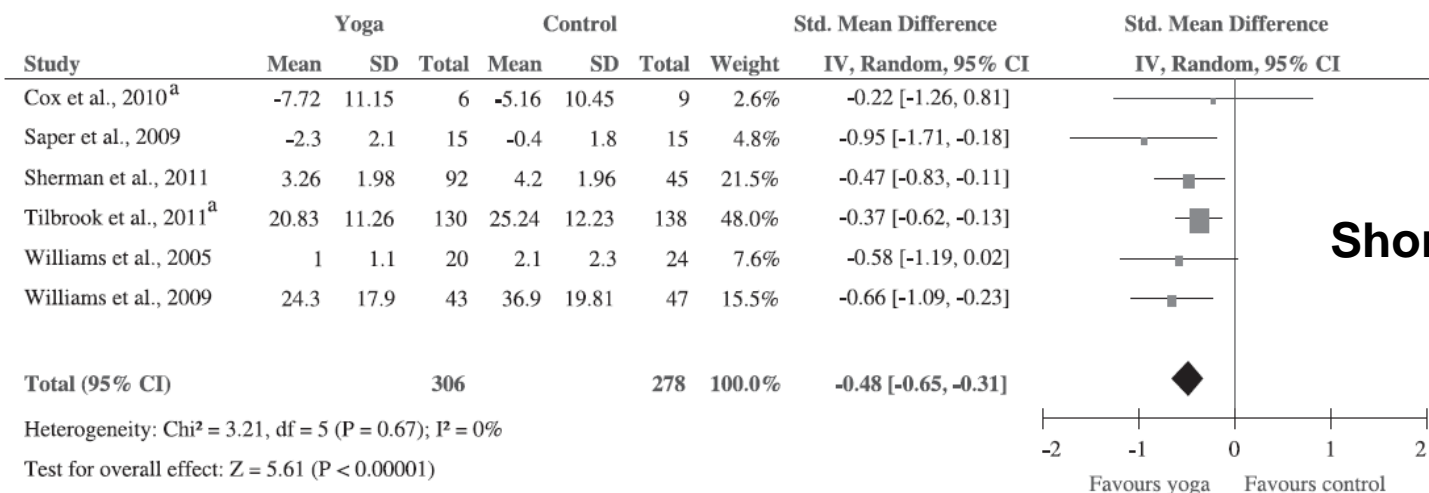
Ten randomized controlled trials with a total of 967 chronic low back pain patients were included.



Yoga for Chronic Low Back Pain

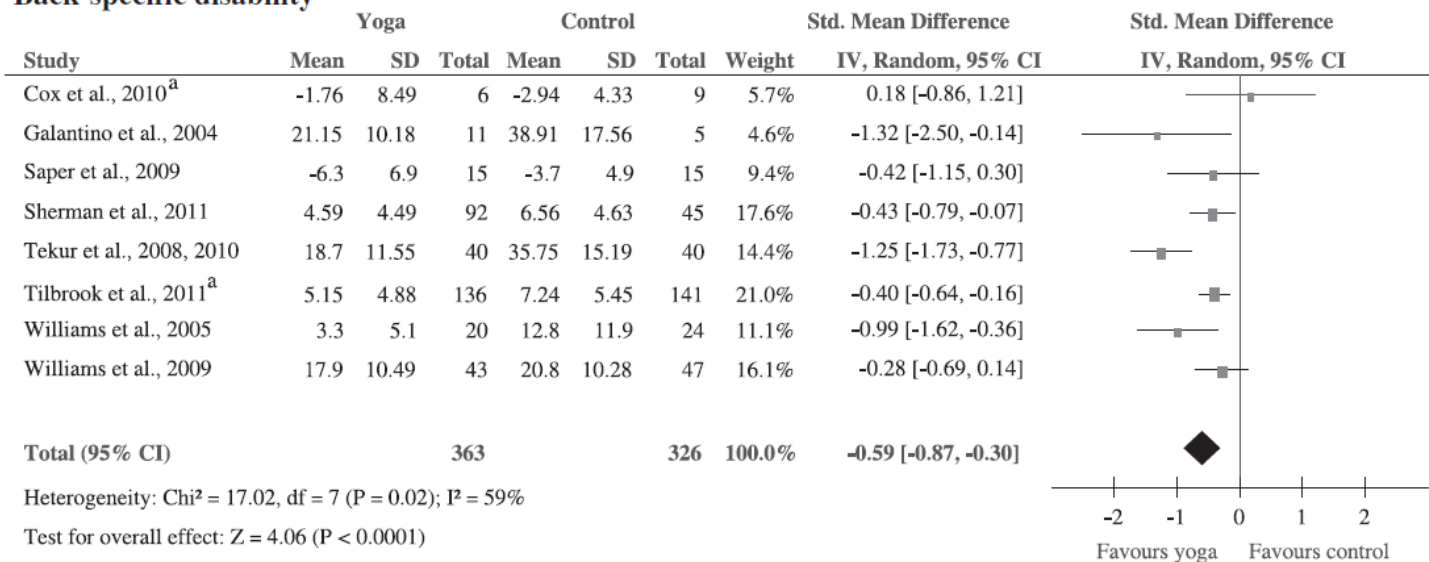
A Short-term effects

Pain



Short-term effects

Back-specific disability



- Strong evidence for the short-term and long-term effectiveness of yoga for chronic low back pain

Des preuves solides de l'efficacité à court terme et à long terme du yoga pour la lombalgie chronique

- Yoga can be recommended as an additional therapy to chronic low back pain patients

Le yoga peut être recommandé comme une thérapie supplémentaire pour les patients atteints de douleurs lombaires chroniques

- No direct dose-response relationship

Aucune relation directe entre la dose et la réponse

- Long-term effects depend on sustained yoga practice.
- Can results from RCTs be directly transferred to yoga practice under naturalistic conditions?
- **Who is actually using yoga in everyday life?**



- Case-control study
- All patients admitted to **our Department for Internal and Integrative Medicine** during a 3-year period.
- Mainly **chronic pain patients**.
- Questions on **regular** yoga practice.
- Matched pairs (n= 186 yoga pract. and 186 controls).

	Yoga (n = 186)	No yoga (n = 186)	p
Age	51.8 ± 12.8	51.5 ± 12.9	0.151
Gender n (%)			1.000
Female	165 (88.7%)	165 (88.7%)	
Male	21 (11.3%)	21 (11.3%)	
Education n (%) with A-level and higher	66 (35.5%)	66 (35.5%)	1.000
Family status n (%) in relationship/married	105 (56.5%)	110 (59.1%)	0.630
Employment n (%)			0.823
Unemployed	103 (55.4%)	100 (53.8%)	
Part-time employed	33 (17.7%)	33 (17.7%)	
Full-time employed	50 (26.9%)	53 (28.5%)	
Diagnosis n (%)			1.000
Spinal pain	34 (18.3%)	34 (18.3%)	
Osteoarthritis	16 (8.3%)	16 (8.3%)	
Rheumatic arthritis	9 (4.8%)	9 (4.8%)	
Fibromyalgia	27 (15.5%)	27 (15.5%)	
Headache	20 (10.8%)	20 (10.8%)	
Pain, others	18 (9.7%)	18 (9.7%)	
Hypertension	7 (3.8%)	7 (3.8%)	
Ischemic cardiac disease	2 (1.1%)	2 (1.1%)	
Inflamm. bowel disease	14 (7.5%)	14 (7.5%)	
Irritable bowel syndrome	9 (4.8%)	9 (4.8%)	
Lung diseases	8 (4.3%)	8 (4.3%)	
Others	22 (11.8%)	22 (11.8%)	

Yoga in Everyday Life

	Yoga (<i>n</i> = 186)	No yoga (<i>n</i> = 186)	<i>P</i>
General health status <i>n</i> (%)			0.012
Excellent	1 (0.5%)	0 (0.0%)	
Very good	2 (1.1%)	2 (1.1%)	
Good	32 (17.2%)	26 (14.0%)	
Fair	116 (62.4%)	116 (62.4%)	
Poor		26 (14.0%)	

Yoga users are healthier than non-users.

	Yoga	No yoga	Group difference (95% CI)	<i>P</i>
Health-related quality of life score (n = 186)				
Physical component score	35.7 ± 9.1	33.7 ± 9.9	2.0 (0.2; 3.7)	0.029
Mental component score	37.3 ± 11.6	36.9 ± 11.5	0.5 (−2.2; 3.2)	0.737
Social functioning	9.9 ± 4.0	9.6 ± 3.9	0.3 (−0.6; 1.1)	0.518
Depression	7.5 ± 3.5	7.7 ± 4.0	−0.2 (−1.0; 0.5)	0.563
Life satisfaction	3.4 ± 0.9	3.3 ± 1.0	0.1 (−0.1; 0.3)	0.252
Health satisfaction	2.2 ± 1.0	2.1 ± 1.0	0.1 (−0.1; 0.3)	0.165

Yoga in Everyday Life: Meditation

- Case-control study
- All patients admitted to **our Department for Internal and Integrative Medicine** during a 3-year period.
- Mainly **chronic pain** patients.
- Questions on regular **meditation** practice.
- Matched pairs (n= 115).

	Meditation (n=115)	No meditation (n=115)	P
Age Mean±SD	52.9±13.6	53.1±13.5	0.102
Gender n (%)			1.000
Female	95 (82.6)	95 (82.6)	
Male	20 (17.4)	20 (17.4)	
Education n (%)			1.000
With A-level and higher	40 (34.8)	40 (34.8)	
Family status n (%)			0.099
In relationship/married	53 (46.1)	66 (57.9)	
Employment n (%)			0.115
Full-time employed	22 (19.1)	38 (33.0)	
Part-time employed	25 (21.7)	17 (14.8)	
Unemployed	65 (56.5)	58 (50.4)	
Other/missing	3 (2.6)	2 (1.7)	
Diagnosis n (%)			1.000
Spinal pain	24 (20.9)	24 (20.9)	
Osteoarthritis	13 (11.3)	13 (11.3)	
Rheumatoid arthritis	14 (12.2)	14 (12.2)	
Fibromyalgia	9 (7.8)	9 (7.8)	
Headache	10 (8.7)	10 (8.7)	
Pain, others	6 (5.2)	6 (5.2)	
Hypertension	4 (8.7)	4 (8.7)	
Ischemic cardiac disease	2 (3.5)	2 (3.5)	
Inflammatory bowel disease	7 (6.1)	7 (6.1)	
Irritable bowel syndrome	2 (1.7)	2 (1.7)	
Lung diseases	4 (3.5)	4 (3.5)	
Others	20 (17.4)	20 (17.4)	

Yoga in Everyday Life: Meditation

	Meditation (n=115)	No meditation (n=115)	Group diff	P
Health-related quality of life (SF-36)				
Physical component score	35.7±9.1	35.0±9.1	1.8 (-0.6; 4.3)	0.15
Mental health	39.6±12.5	39.1±12.5	0.5 (-4.0; 2.9)	0.76
Anxiety	9.0±4.4	9.0±4.4	-0.6 (-1.7; 0.5)	0.30
Depression	7.9±4.1	7.9±4.6	-1.2 (-2.3; 0.4)	0.06
Life satisfaction	3.5±1.1	3.3±0.9	0.2 (0.01; 0.6)	0.046
Function	2.4±1.2	2.1±1.0	0.3 (-0.1; 0.5)	0.11

Meditation users are happier than non-users.

- **Yoga** users are healthier than non-users.
- **Meditation** users are happier than non-users.
- Perhaps we should do both...?
- *Les utilisateurs de **yoga** sont plus sains que les non-utilisateurs.*
- *Les utilisateurs de **meditation** sont plus heureux que les non-utilisateurs.*
- *Peut-être devrions-nous...*



THE JOURNAL OF ALTERNATIVE AND COMPLEMENTARY MEDICINE
Volume 23, Number 3, 2017, pp. 201–207
Mary Ann Liebert, Inc.
DOI: 10.1089/acm.2016.0140

Treatment of Major Depressive Disorder with Iyengar Yoga and Coherent Breathing: A Randomized Controlled Dosing Study

Chris C. Streeter, MD,^{1–6} Patricia L. Gerbarg, MD,⁷ Theodore H. Whitfield, ScD,⁸
Liz Owen, BA^{rch},¹ Jennifer Johnston, PhD,¹ Marisa M. Silveri, PhD,^{1,3,5} Marysia Gensler,¹
Carol L. Faulkner, BS,¹ Cathy Mann,¹ Mary Wixted, JD,¹ Anne Marie Hernon,¹
Maren B. Nyer, PhD,^{3,9} E. Richard P. Brown, MD,^{10,*} and John E. Jensen, PhD^{3,5,*}



- **High-Dose Yoga-** Group at week 12: significantly more patients with $BDI-II \leq 10$

Haute-Dose Yoga- Group à la semaine 12: beaucoup plus de patients avec $BDI-II \leq 10$

- **Low-dose Yoga** less burdensome and also effective

Faible-dose Yoga moins lourd et aussi efficace





HHS Public Access

Author manuscript

J Clin Psychiatry. Author manuscript; available in PMC 2017 January 28.

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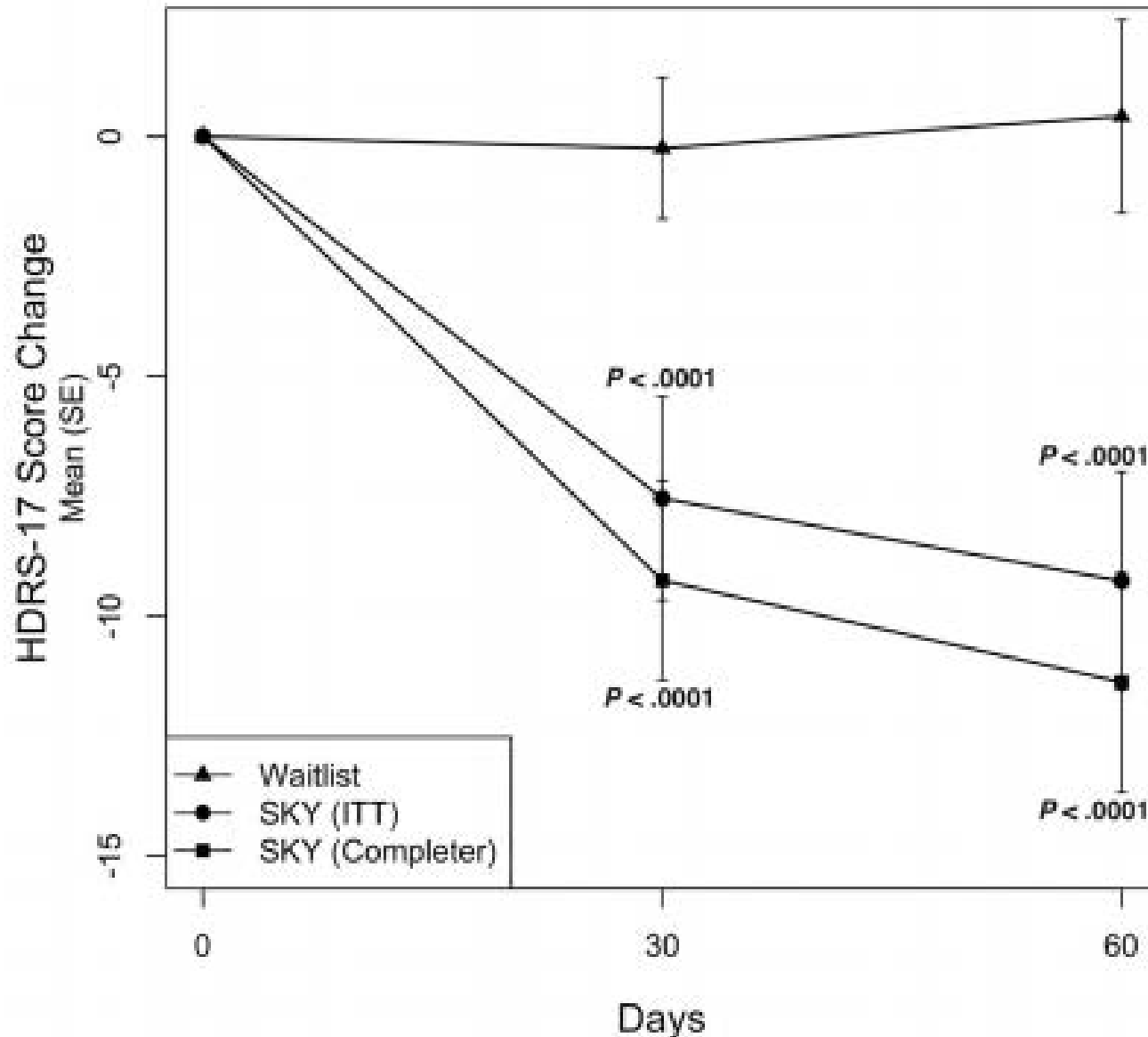
J Clin Psychiatry. 2017 January ; 78(1): e59–e63. doi:10.4088/JCP.16m10819.

A Breathing-based Meditation Intervention for Patients with Major Depressive Disorder Following Inadequate Response to Antidepressants: A Randomized Pilot Study

Anup Sharma, MD, PhD^{1,*}, Marna S. Barrett, PhD¹, Andrew J. Cucchiara, PhD², Nalaka S. Gooneratne, MD³, and Michael E. Thase, MD¹



Yoga for Depression



N= 25
Week 1: 6 Yoga
classes, Week 2-8:
weekly Yoga classes
+ home practice
vs Waitlist control
Sudarshan Kriya
yoga

Sharma et al. 2017:

- At week 8: significant improvement in HDRS-17 total score compared to waitlist. (-9.77 vs. 0.50 , $P = .0032$)
- Significant reduction in BDI total score vs Waitlist. (-17.23 vs. -1.75 , $P = .0101$)
- Significant mean changes in Beck Anxiety Inventory (BAI) total score for SKY than waitlist (ITT mean difference: -5.19 ; 95% CI -0.93 to -9.34 ; $P = .0097$)
- **Effective therapy for patients who do not respond to antidepressants!**

Un traitement efficace pour les patients qui ne répondent pas aux antidépresseurs!

Yoga for Depression

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Journal of Affective Disorders 213 (2017) 70–77



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Contents lists available at ScienceDirect

Journal of Affective Disorders

journal homepage: www.elsevier.com/locate/jad

Review article

A systematic review of yoga for major depressive disorder

Holger Cramer^{a,b,*}, Dennis Anheyer^a, Romy Lauche^b, Gustav Dobos^a

**7 RCT's with low sample sizes
N= 240 participants**

- Yoga vs Attention control: positive short-term effects.
- Yoga vs Exercise: no group differences in severity of depression.
- Yoga vs Electro-Convulsive Therapy: stronger antidepressant effect of Electro-Conv.Ther.
- Yoga vs. Medication: no group differences in severity. Yoga as an add-on: one RCT with positive effect of Yoga, one RCT without group differences.
- **Some evidence for positive effects beyond placebo and comparable effects compared to evidence-based interventions**

Certaines preuves d'effets positifs au-delà du placebo et des effets comparables par rapport aux interventions scientifiquement prouvés

Yoga in breast cancer patients

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Yoga for improving health-related quality of life, mental health and cancer-related symptoms in women diagnosed with breast cancer.

Cramer H, Lauche R, Klose P, Lange S, Langhorst J, Dobos G

Cochrane Database Syst Rev. 2017 Jan

Yoga in breast cancer ...



AUTHORS' CONCLUSIONS:

Moderate-quality evidence supports the recommendation of yoga as a supportive intervention for:

- improving health-related **quality of life**
- reducing **fatigue and sleep disturbances**
- reducing **depression, anxiety and fatigue**, when compared with psychosocial/educational interventions.

Yoga in breast cancer ...



AUTHORS' CONCLUSIONS:

Moderate-quality evidence supports the recommendation of yoga as a supportive intervention for:

- improving health-related **quality of life**
- reducing **fatigue and sleep disturbances**
- **reducing depression, anxiety and fatigue**, when compared with psychosocial/educational interventions.

Forte preuve de l'efficacité de la lombalgie chronique

Preuves préliminaires d'efficacité dans

Douleur chronique au cou

Fibromyalgia syndrome

Osteoarthritis

Rheumatoid arthritis

Depression

La conscience du corps semble être un mécanisme clé

Aucune relation dose-réponse directe, mais les effets à long terme dépendent d'une pratique soutenue

Efficace dans la vie quotidienne

relativement sûre si elle est pratiquée avec soin

Thanks a lot for your attention!
Nous vous remercions de votre
attention !