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Wie wirkt Laufen gegen Depression?

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INITIATIVE
BÜNDNISSE
GEGEN DEPRESSION
IN RHEINLAND-PFALZ

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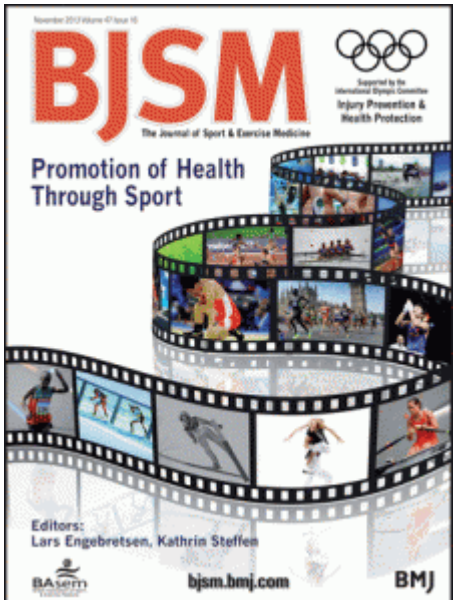
"Sport is one part, but is probably not a large part of lifetime physical activity."



Physical inactivity remains the greatest public health problem of the 21st century: evidence, improved methods and solutions using the '7 investments that work' as a framework

Stewart G Trost,[1] Steven N Blair,[2] Karim M Khan[3]

In 2009, *BJSM*'s first editorial argued that 'Physical inactivity is the greatest public health problem of the 21st century'.[1] supporting that claim have not ed. Now, 5 years after first dedicated 'Physical Activity issue (http://bjsm.bmj.com/conten are pleased to highlight 23 new contri tions from six countries. This issue contains an analysis of the cost of physical inactivity from the US Centre for Diseases Control.[2] We also report the cost-effectiveness of one particular physical activity intervention for adults.[3]

PROVEN 'INVESTMENTS THAT WORK' TO LIMIT THE DISEASE OF PHYSICAL INACTIVITY

The essential framing document for this *BJSM* issue is 'the 7 investments for Physical Activity' from the International Society for Physical Activity and Health (ISPAH).[4] The articles in this issue elaborate on these 7 evidence-based investments. We recommend anyone advocating for the public health benefits of physical activity to consider framing their argument in the multisector, multisystem approach concisely captured in the '7 investments that work' document. There is no 'magic bullet' to alleviate physical inactivity so do not try to suggest one. There are seven proven, relatively easy to implement steps. Many jurisdictions are already implement- ents of the '7 investments'; the docu approved by the WHO[5] and cited by the tional Olympic Committee in its Lausanne Co s.[6]

The built environment and transit

The built environment (and access to transit) is a major determinant of physical activity/inactivity. Prolonged sitting in cars is one outcome of a poorly designed community and Professors Owen,[7] as well as Ekblom-Bak,[8] Ferreira[9] quantify the serious risks—including death—associated with sedentary behaviour in various settings as well as in various populations. Professor Biddle,[10] shares a very comprehensive review of interventions to alleviate the problem. Taken together, these articles on 'sitting disease' add weight to the argument for 'health breaks' from prolonged sitting and the argument for 'healthy cities' where walking and transit are the easy choices.

Schools

Schools can provide an ideal physical activity environment to promote activity in children and also help them learn how to maintain activity. Mai Chinapaw[11] reports on children's physical activity level within a randomised controlled trial (RCT). In almost 5000 children with valid accelerometry data, Professor Josephine Booth[12] showed a longitudinal association between moderate to vigorous physical activity and academic achievement at ages 11, 13 and 16. This article from the Avon Longitudinal Study of Parents and Children (ALSPAC) generated a great deal of press interest when released on 'online first'.

Community-based approaches in promoting physical activity

The increasing attention to routine physical activity in adulthood comes from BE ACTIVE in the UK.[3] Older people also benefit remarkably as shown from the national UK data by Hamer[13] and in Western Australia by Almeida.[14]

Sports for promoting physical activity

Sport is one part, but is probably not a large part of lifetime physical activity levels. However, some individuals do maintain participation in sports throughout adulthood. Zhao[15] showed that meeting the US Physical Activity Guidelines (engaging in ≥150 min/week of the equivalent moderate-intensity physical activity) was associated with a 36% reduction in mortality. This finding was based on around 10 000 people with 5 years follow-up from the large representative US National Health and Nutrition Examination Survey database. This article underscores that moderate levels of physical activity (150 min/week) are associated with dramatic, significant, health benefits. No medication comes anywhere near such an effect. Readers will also be aware of sports tremendous power in health education. This is currently being best championed by FIFA as outlined in this review[6] and elsewhere in *BJSM* and other sports medicine journals.

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Gliederung

- Bewegung und „körperliche“ Gesundheit
- Epidemiologie: Wachsender Bedarf bei seelischen Störungen
- Wirksamkeit und Wirkmechanismen von Bewegung , insbesondere „Laufen“
- Bewegungsempfehlungen

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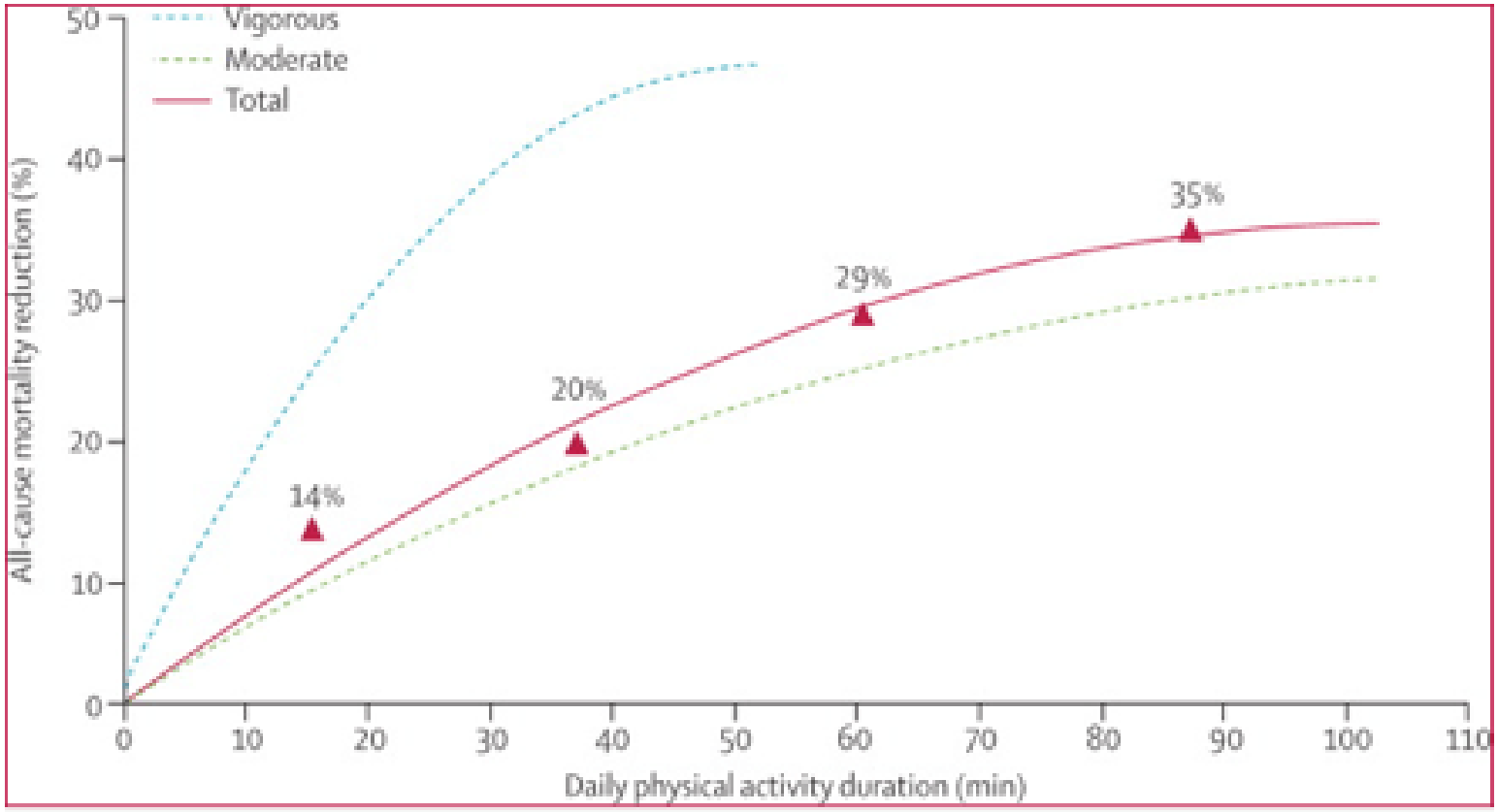
Daily physical activity duration and all-cause mortality reduction Wen et al. 2011



THE LANCET

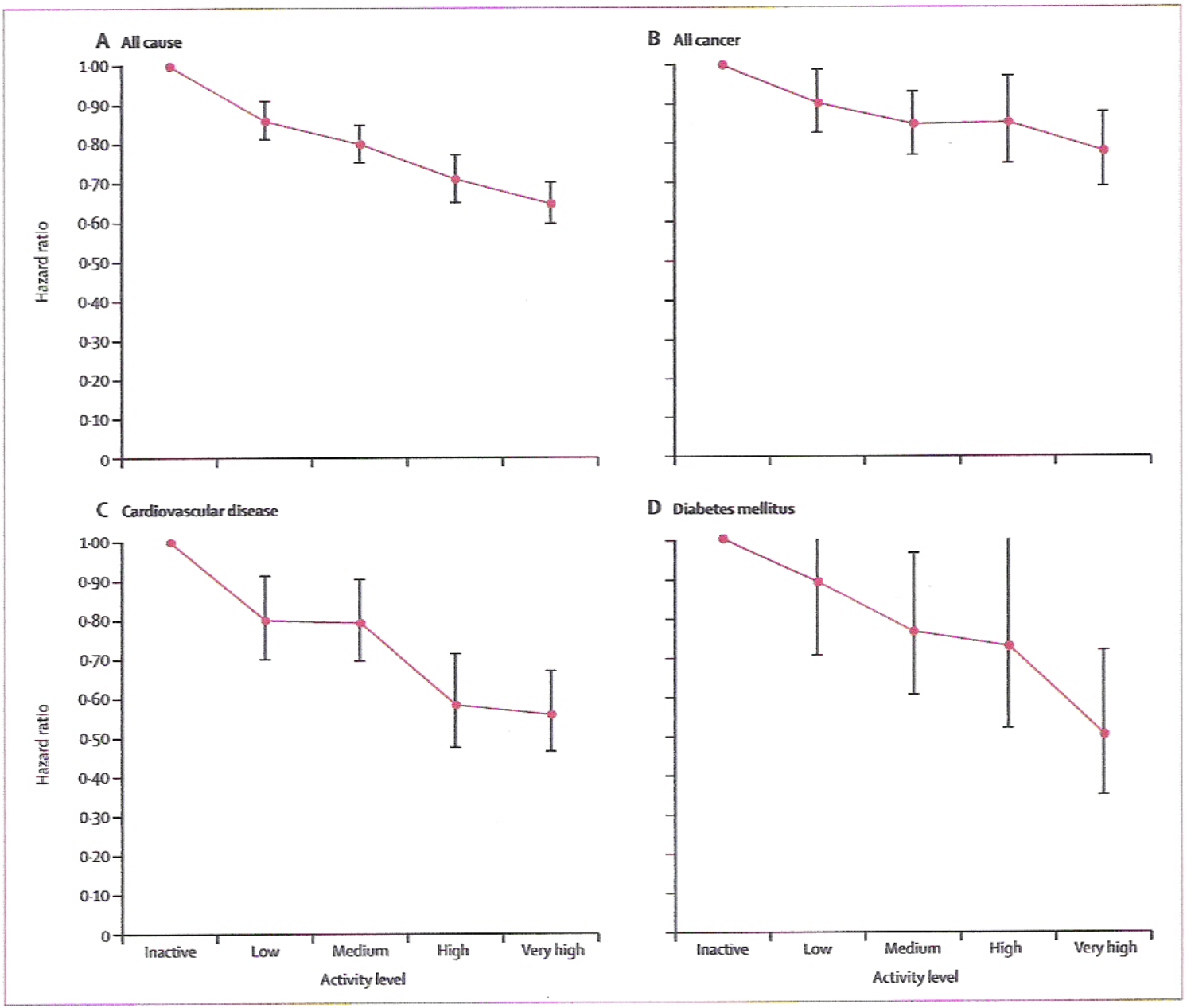
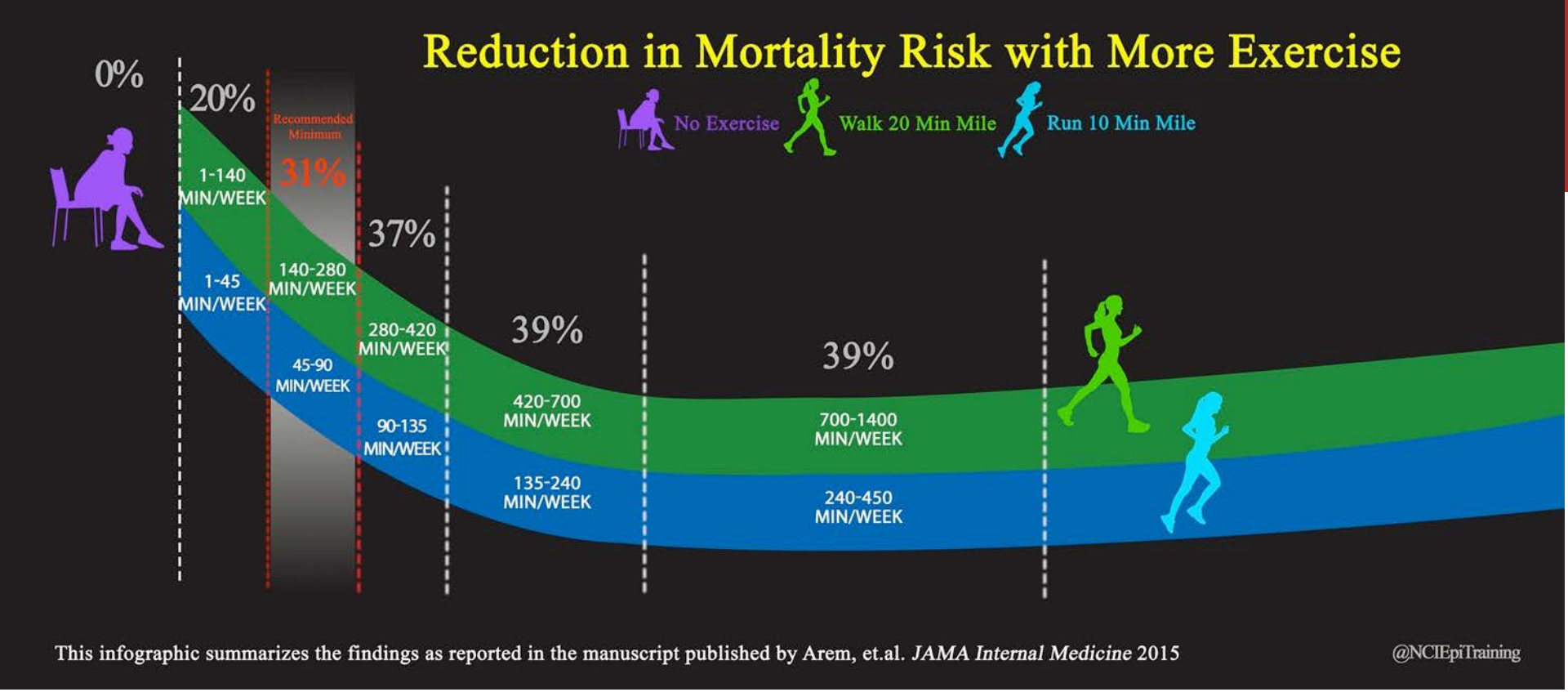


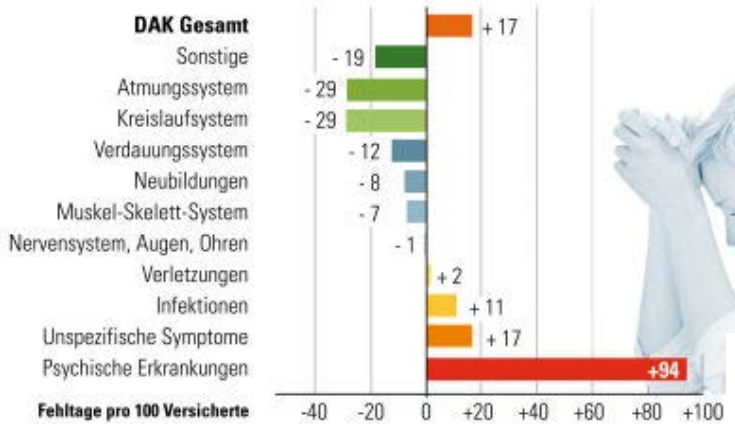
Figure 1: **Relation between physical activity volume and mortality reduction compared with individuals in the inactive group**
Bars show 95% CIs.

Reduction in Mortality Risk with More Exercise



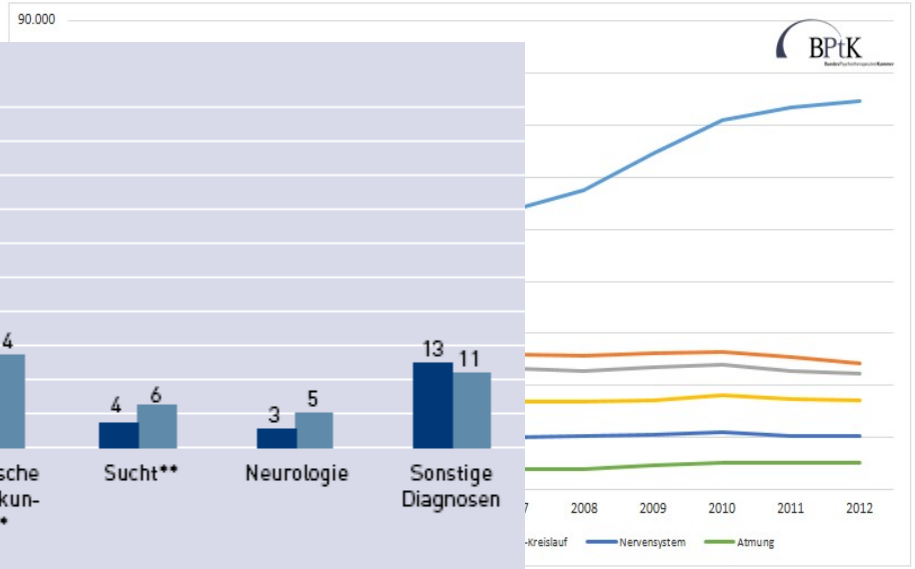
Verschiebung des Krankheitsspektrums

Veränderung der Fehltage pro 100 Versicherte zwischen 2000 und 2012

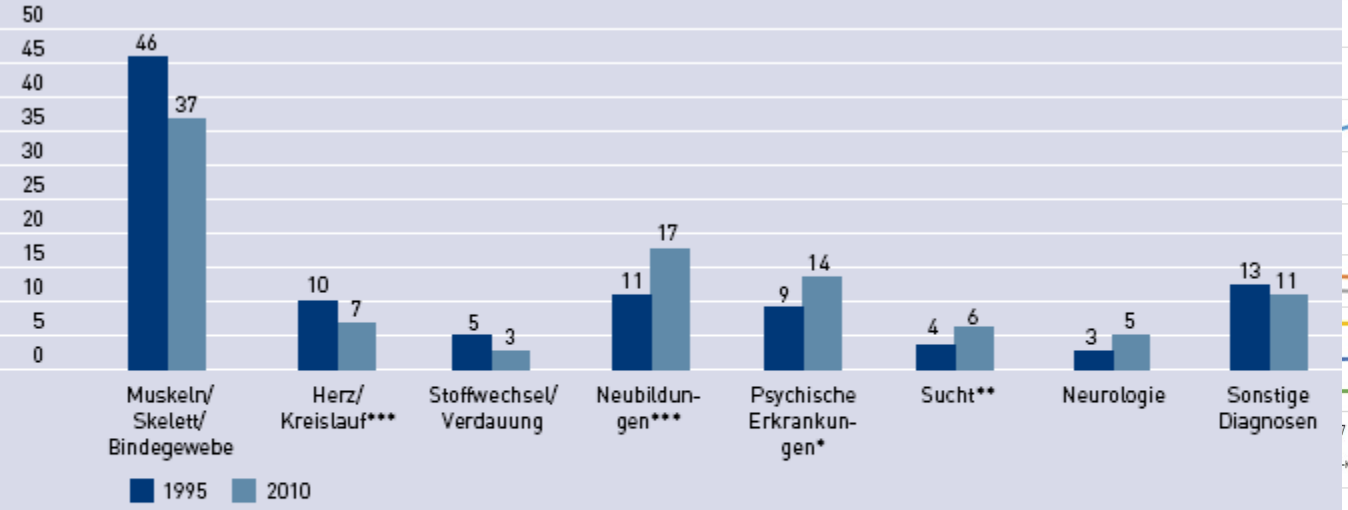


QUELLE DAK Gesundheitsreport 2013

Frühverrentung von 2001 bis 2012 – am häufigsten psychisch bedingt



Anteile Reha-Leistungen in %



[1] ohne Fälle, bei denen die 1. Diagnose noch nicht erfasst ist

* ohne Sucht

** hier Entwöhnungsbehandlung als eigene Maßnahmeart und als einzige der hier genannten Diagnosengruppen nicht über ICD-Diagnosen definiert

*** ohne neorologische Krankheitsbilder

Quelle: Statistiken der Deutschen Rentenversicherung „Rehabilitation" 1995 und 2010

higkeit pro Jahr aufgrund der sechs wichtigsten Krankheitsarten.

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Evidenz zu Depression und Bewegung

- Bewegung kann Depression verhindern: "There is promising evidence that any level of PA, including low levels (e.g., walking <150 minutes/weeks), can prevent future depression." (Mammen, G., & Faulkner, G. 2013).
- Bewegung hat therapeutische antidepressive Effekte: "Physical activity reduced depressive symptoms in people with mental illness." (Rosenabum et al. 2014)
- Interventionen haben hohe Effektstärken "The main result showed a significant large overall effect favoring exercise intervention." (Josefsson et al. 2014)
- "Bei leichten bis moderaten Depression ist der Effekt des Training vergleichbar mit Medikamenten und Psychotherapie; für schwere Depressionen ist Training eine sehr wertvolle komplementäre Therapie."
- "Exercise therapy also improves physical health, body image, patient's coping strategies with stress, quality of life, and independence in activities of daily living in older adults." (Knapen et al. 2014)

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Bewegung als biopsychosoziale Intervention

1. Körperliche Auswirkungen
- vegetative Anpassung
- neuronale Plastizität
- neurophysiologisch-biochemische (Hormone, Transmitter) Anpassung
- muskuläre Anpassung
- metabolische Anpassung

2. Psychosoziale Auswirkungen
- Soziale Unterstützung
- Aktivitätserhöhung
- Kontrollerfahrung
- Erfahrung der Selbstwirksamkeit

3. Veränderung depressionsspezifischer Einstelllungen

vgl. Huber & Köllner 2013

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Wie wirkt Bewegung und Laufen bei Depressionen ?

- veränderung depressiver Einstellungen

  Abbau negativer Bewertungen der eigenen Person, Aufbau von Selbstwirksamkeit

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Warum Laufen?

- Einfache und zyklische Bewegung
- Naturerlebnis
- Überall durchführbar
- Keine „Infrastruktur“ notwendig
- „Initial Value“

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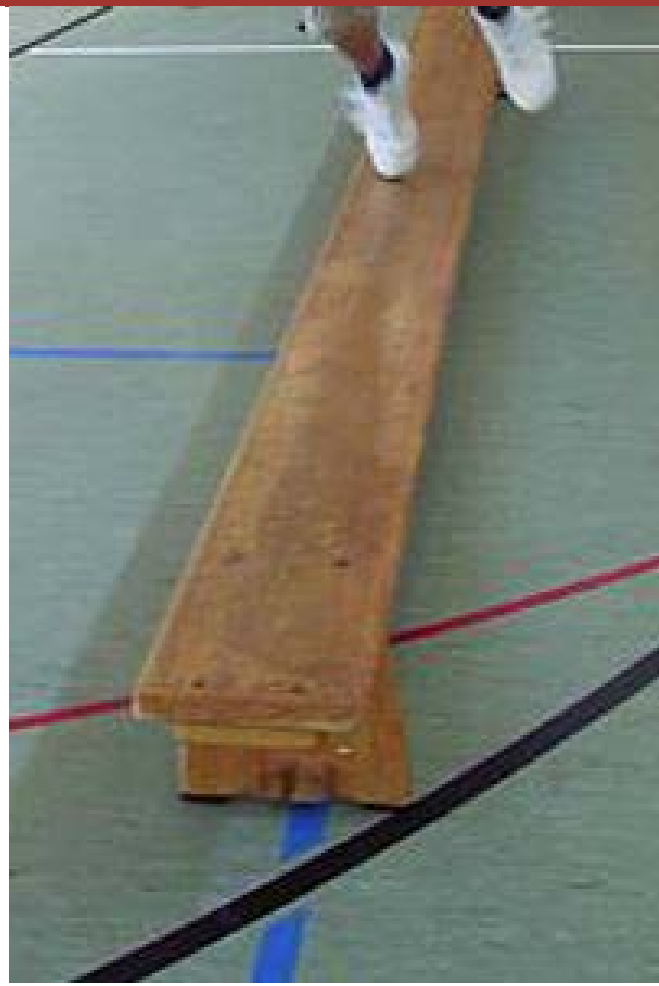
Aktivitätssteigerung



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Anregung von sozialer Interaktion

Chancen zum Aufbau von nonverbalen, verbalen und auch taktilen Kontakten.

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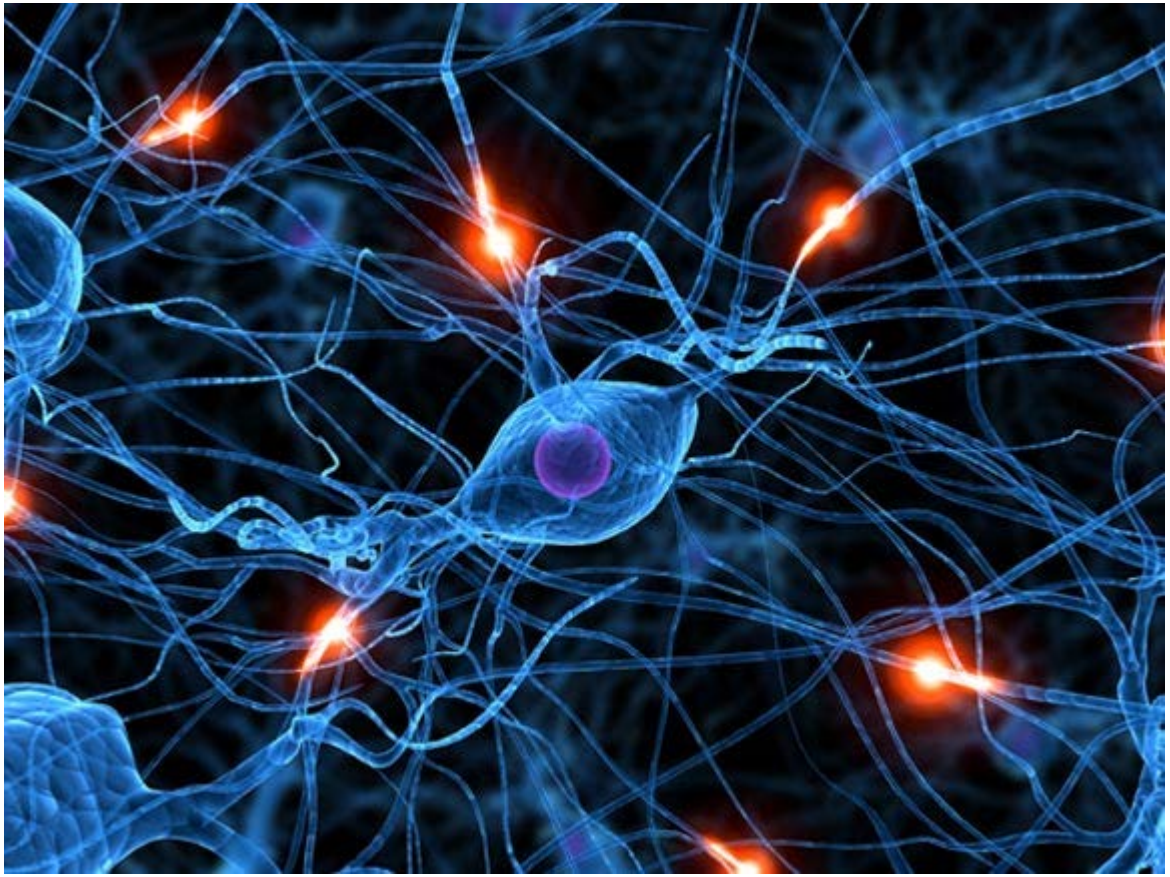
Beeinflussung auf der biochemischen Ebene



Was muss ich tun, um davon zu profitieren?

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Zusammenfassung

- Hoher (somatischer) Gesundheitswert der Bewegung
- Hohe Prävalenz von psychischen Problemen
- Wirksamkeit eigentlich gut belegt.
- Wirkmechanismen und Dosierung (Art und Umfang) müssen noch besser untersucht werden.
- Allgemeine Empfehlungen sind nur in der Prävention angemessen.
- In der Therapie ist professionelle Bewegungsförderung notwendig.

Devereux, G. R., Wiles, J. D., & Howden, R. (2015). Immediate post-isometric exercise cardiovascular responses are associated with training-induced resting systolic blood pressure reductions. European journal of applied physiology, 115(2), 327-333.

Mammen, G., & Faulkner, G. (2013). Physical activity and the prevention of depression: a systematic review of prospective studies. *American journal of preventive medicine*, *45*(5), 649-657.

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Zschucke, Elisabeth, Katharina Gaudlitz, and Andreas Ströhle. "Exercise and physical activity in mental disorders: clinical and experimental evidence."*Journal of Preventive Medicine and Public Health* 46.Suppl 1 (2013): S12-S21.

Josefsson, T., Lindwall, M., & Archer, T. (2014). Physical exercise intervention in depr
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sports, *24*(2), 259-272.