

Effects of training programs to reduce MSD

Quit lifting techniques?

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Literature results

Burton et al., 2006, Eur J Spine J 15: S136-168

“Back schools based on traditional biomedical / biomechanical information, advice and instruction are not recommended for prevention in LBP”

Martimo KP et al., 2008, BMJ 336:429-431

“There is no evidence to support use of advice or training in working techniques with or without lifting equipment for preventing back pain or consequent disability. The findings challenge current widespread practice of advising workers on correct lifting technique.”

Literature results

Burton et al., 2009, Occupational Medicine 2009
59(1):44-52.

“Neither biomedical treatment nor ergonomic workplace interventions alone offer an optimal solution”

Van der Beek 2009, IEA conference

“Low to moderate quality evidence that physical and organisational ergonomic interventions were not more effective than no ergonomic intervention on short and long term LBP and incidence and intensity”

Van der Beek et al, 2008, Tijdschrift voor Ergonomie
33(6): 38

“Hef tilcursussen op en doe wat wel werkt! (Stop with lifting techniques, rather do what works!)”



Review studies: high quality BUT:

- Large variety in the interventions
- Different quality of the interventions
- Limited number of high quality studies
- Different test protocols

→ Heterogeneity regarding contents, outcomes, study population and study design



Example

Inclusion criteria of the review study:

- RCT study (OK)
 - “The intervention met the definition of a physical or organisational ergonomic intervention, that is: the intervention is targeted on changing the biomechanical exposure at the workplace OR on changing the working organisation”
- Different contents, different interventions are compared



What is a good intervention/project? (Koningsveld et al., 2005)

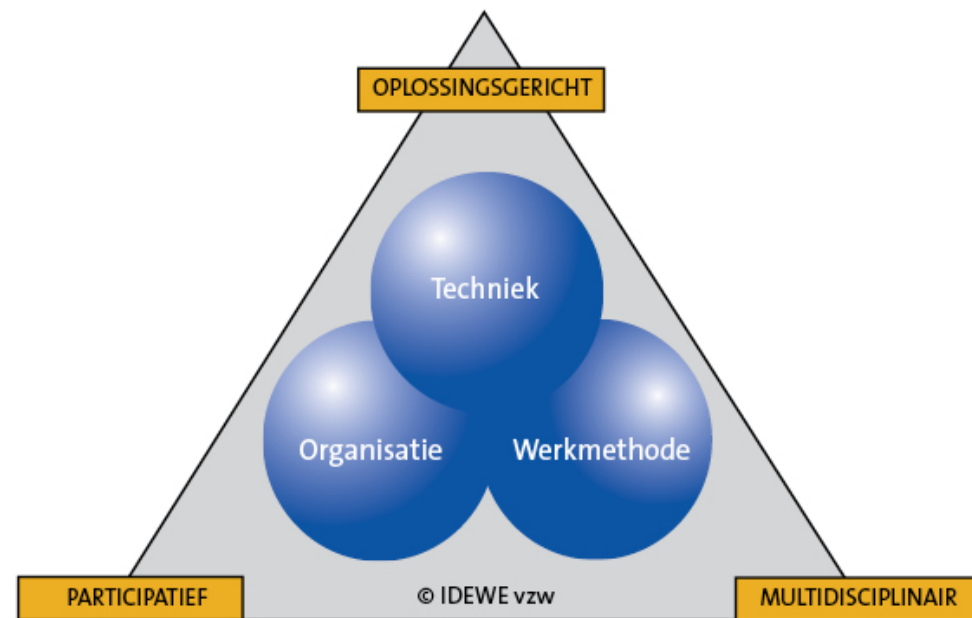
- carry out a good inventory;
- arrange direct workers' participation;
- arrange strong management support;
- use a step-by-step approach;
- do not only focus on health issues;
- arrange that a steering group is established with responsibilities;
- check the effects, including side effects in an early stage;
- describe the costs: benefit ratio, not only in money but also with non-quantitative measures.



+ complete with

Interventions that include different components:
Technical, organisational & work method issues

→ multi-component
intervention strategy



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+ complete with

- Exercise programs: there is strong evidence that exercise programs may increase the physical activity level from employees AND prevent MSD (e.g. Janer et al. 2002; Proper et al. 2003, Bigos et al. 2009)
- Behavior change: use tailor-made programs, theories on motivation, take into account individual needs (Marchall 2004) and participaton of workers and employers (Burton et al. 2009, Rivilis et al. 2008)



And then perform review studies ...



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