

Results of an intensive rehabilitation programme for workers with chronic low back pain

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The aim

- The aim is to reduce lost days after a back pain episode and to prevent permanent disability.
- The workers concerned are coming from small and medium sized companies with different kind of activities (handcraft, commercial and industrial activities) .

Principles of the programme

- The programme is based on the following principles:
 - participation on a voluntary basis
 - agreement with the company of the worker
 - multidisciplinary approach (occupational health, ergonomics, physical therapy and psychology)

The programme

- Back school including anatomy and physiology of the spine, learning of back protection principles
- Physical reconditioning : aerobic fitness, muscular strength and joint flexibility
- Pain and stress management including relaxation techniques
- Work place ergonomic analysis and identification of biomechanical risk factors in order to suggest improvements of the working conditions

Inclusion criteria

- Workers injured at work with one episode of back pain requiring at least 20 lost days
- Workers with chronic or repeated low back pain

Exclusion criteria

- Cervical pain
- Prolapsed disk requiring surgery
- Workers during the 6 weeks after prolapsed disk surgery
- Absence from work of more than 12 months for low back pain

Evaluation

- Eifel questionnaire (French version of the Roland & Morris score),
- Dallas questionnaire,
- Fingertip to ground,
- Pain evaluation on a visual analogue scale

Participants:

- Number of participants: 116
- 29% practising sports
- 50% smokers, 16% former smokers
- Absence from work:
 - Between 3-6 months: 25
 - Between 6-12 months: 17

DRAD

| Impact on the quality of life | Beginning | End | |
|-------------------------------|------------------|------------------|------------|
| 8-10 | 52,85 (19,33) | 42,75 (21,93) | P<0,000001 |
| 11-13 | 42,96 (21,40) | 33,50 (22,79) | P<0,000005 |
| 14-16 | 33,77 (23,60) | 27,00 (20,46) | p<0,000199 |

| Evaluation | beginning | end | |
|---|-------------------|--------------------|------------|
| Intensity of pain at the moment of evaluation | 39,36 (26,05) | 28,42 (24,84) | P<0,000078 |
| Pain: In the morning the last 3 days | 48,07 (28,94) | 39,18 (28,62) | P<0,001205 |
| Pain: At the end of the day the last 3 days | 58,95 (29,13) | 45,093 (29,086) | P<0,000003 |
| Eifel score | 10,12 (4,38) | 7,63 (4,67) | P<0,0001 |
| Fingertip to ground | 15,12 (14,523) | 7,04 (13,10) | P<0,000000 |

Follow-up session after 6 months (41 participants)

| | Beginning | end | |
|---|------------------|------------------|--------|
| Pain: In the morning the last 3 days | 52,44 (30,35) | 55,23 (23,79) | n.s |
| Pain: At the end of the day the last 3 days | 63,59 (27,56) | 59,00 (26,01) | n.s |
| Fingertip to ground | 13,19 (14,96) | 9,79 (13,58) | P<0,01 |

Conclusion:

Significant difference from the beginning to the end:

- Eifel questionnaire (French version of the Roland & Morris score),
 - Dallas questionnaire,
 - the fingertip to ground,
 - pain evaluation on a visual analogue scale
- Follow up sessions no significant difference in flexibility and pain level