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A small scale investigation of the objective effect of low back pain on the ability to carry out activities of daily living.

The study selected 13 chronic non-specific LBP cases (defined as pain lasting more than 3 months) and 13 sex and age matched healthy normal controls (HNC).

Objective measures of activity were provided by whole body accelerometry and metabolic rate (measured using isotopes). Measurement tools were validated during the study.

The analysis compared these objective findings with self-reported, perceived limitations. Perceptions were determined using standard assessment tools –

- Roland Disability Q. (RDQ) - measures disability,
- Tampa Scale for Kinaesiphobia (TSK) - measures fear of movement,
- Visual analogue scale (VAS) - measures current pain.



Assessment was continuous over a 14-day period.

Mean age of participants was 45 (3).  
Mean duration of pain 12 (7) years.

Cases and controls were well matched for body mass, %body fat and, resting metabolic rate.

77% of LBP cases were in employment.

Objective activity measures (Accelerometry and metabolic measures) correlated quite well with each other, for both groups. That is, amount of movement corresponded with energy use.

Mean scores for LBP cases-

RDQ - 12.5 (7.4)  
TSK - 42.8(9.3)  
VAS - 33.7(27.2)

RDQ is reported to be 9.5(5.8) for large groups of cases; the study group seems to perceive itself to be more disabled than is usual.

There was no significant correlation between any of the three scores and objective activity measures. There was no significant difference in objectively measured activity between cases and controls.

#### Comment

Although this was a small study, it was quite well designed. It would seem that the three measures that were applied (RDQ, TSK and VAS) do not correlate with objective limitations in activity. They should probably not therefore be relied upon for assessments of disability though the link between activity and disability may be more subtle than is being presumed.

However, a high proportion of LBP cases in this study were currently employed. It is therefore possible that these individuals were unusually active cases.