

### Work-Related Musculoskeletal Disorders

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Is recreational exercise beneficial or harmful? While aerobic fitness is often proposed to be protective against musculoskeletal (MSK) injury, recreational exercise is also proposed to be a contributory cause if not sole cause.

This study attempts to unravel the complexities by measuring risk factors for MSK injuries.

4034 men and 967 women enrolled into the study between 1970 and 1985. [No mention of selection criteria bias.]

A treadmill exercise machine was used to measure cardio-respiratory fitness, and other facts were established by questionnaire.

Follow-up requested information on muscle, bone, ligament or joint injury in the preceding year.

Cause was also asked for.

Men: 16% reported activity-related injury in the previous 12 months, an additional 8% were assigned as 'other cause'.

High physical activity, long duration and high fitness were risk factors for activity related injury. RR ~ 2.4 (precision unknown).

Women: 14% reported activity-related injury in the previous 12 months, an additional 9% were assigned as 'other cause'.

High physical activity is a risk factor for activity related injury.

In general, activity related injuries tend to occur in the foot, ankle, lower leg, and thigh.

Other causes dominate in the back and arm but wrist/hand are pretty much equal.

Activity and fitness were not (according to the data presented here) protective against other causes.

The authors concluded that fitness was protective against other causes and that gentle walking is harmless.

#### Comment

It is not clear how the authors came to their conclusion from this data. If anything, higher fitness was a risk factor for activity related injuries. Presumably vigour of activity correlated with injury and fitness, but this was not well measured.

General fitness was not protective against non-recreational causes of MSK injury.

People who do more than 1.5hrs a week of physical recreational activity were demonstrably at increased risk of MSK injury. Type of injury unclear.

