

DIGGING THE GARDEN IN THE WRONG WAY
CAN PUT YOUR JOINTS AT RISK, RHS WARNS
Sandy Welches, MGV 2005



Many gardeners no doubt believe that digging the soil is a simple but necessary pastime that involves little skill. But a bad technique can have serious consequences for your back and joints, Britain's Royal Horticultural Society has warned.

A study using the latest technology found that if done in the wrong way, digging can double the load on the joints, leaving millions of gardeners susceptible to chronic injury. James Shippen, an expert in biomechanics at Coventry University, said: "The worst thing is reaching too far with the shovel. **If you have got to move soil, it is so much better to take one step forward and offload the spade than to overreach.**"

Researchers used technology more commonly seen in the production of animated Hollywood films to map the movement of gardeners while digging, measuring the loads imposed on the body's joints, bones and muscles. Reflective "ping pong"-sized balls were attached to key points on the body before gardeners were surrounded with cameras to capture how they moved as they dug a patch of soil. The information was then fed into a computer program that calculates the internal loads placed on the body by each movement. It found that good gardening practice involves using a regular, repetitive technique with minimal back bend and large knee bend rather than erratic movements with large forward bending, stretching limbs and uncontrolled motion. The lumbar region of the back and the shoulders were deemed the most sensitive if a bad posture was used.

Dr. Paul Alexander, head of horticultural and environmental science at the Royal Horticultural Society, said: "Digging is one of the more common gardening practices – whether it be for planting trees, shoveling soil or turning compost – yet we tend to rely upon common sense which can lead to gardeners complaining of aches and pains. Our findings will help us ensure that both amateurs and professionals stay digging for longer, avoiding injury, and improving efficiency."