A workplace exercise and relaxation program can significantly reduce the frequency of headaches and shoulder pain as well as employees’ use of analgesics, according to an Italian study of 384 workers.

Researchers from the University of Turin (Italy) and A.S.O. San Giovanni Battista di Torino said their findings suggest that educating workers on how to prevent headaches can be a non-invasive way of reducing the burden of headaches, even among those with migraines and depression (Cephalalgia 2008;28:541).

“We observed a significant reduction of about 40% of the monthly frequency of headache and neck and shoulder pain in the study group subjects compared with controls,” wrote the researchers, led by Dr. Franco Mongini of the headache and pain unit at the university. Workers with frequent and more intense headaches benefited more than those with less frequent headaches. A workplace exercise and relaxation program was especially effective for reducing the number of headaches and shoulder pain, and analgesic use during a baseline period in March and April 2005. About 80% of the subjects enrolled were female; subjects in the control group were significantly younger than in the intervention group (median age 44 years vs. 48 years, respectively).

One group of workers was then given instruction on exercises to relax face, neck, and shoulder muscles. Reminders to avoid excessive contraction of those muscles were posted in their offices. The control group was not given the instruction or the reminders. The researchers then followed up with subjects in both groups in months 7 and 8.

They found significant reductions in the primary end points—reduction of monthly frequency of headache, neck and shoulder aches, and analgesic consumption, and reduction among those with four or more episodes per month, the intervention group reduced the frequency of headaches, neck and shoulder pain, and the frequency index among those with four or more per month.

In the control group, the adjusted change in the mean days per month with headaches in the intervention group was –2.72, compared with the control group, for neck and shoulder pain it was –3.2, and for analgesic use it was –0.83. For patients with four or more episodes per month, the adjusted change in the mean days per month with headaches in the intervention group was –4.53, compared with the control group; for neck and shoulder pain it was –5.13, and for analgesic use it was –1.57. The researchers said. Among that patient group, the frequency and intensity index underwent a greater adjusted change in the intervention group (–2.53) than in the control group compared with –0.66 for headache and –2.52 for neck and shoulder pain.

Patients with frequent pain episodes were also more likely to improve if they took part in the intervention program. Compared with the control group, those in the intervention group had 6.99 higher adjusted odds of decreasing headache frequency, 3.94 higher adjusted odds of decreasing neck and shoulder pain frequency, and 4.47 higher adjusted odds of decreasing analgesic use.

The researchers found it “particularly interesting” that subjects who rated themselves with anxiety or depression had even stronger responses: Those with depression or generalized anxiety disorder (GAD) had an adjusted change of –6.46 from baseline. The frequency index among those with neither condition was –3.89.

The adjusted frequency index among those with anxiety or depression was –3.04, compared with –1.10 for those with neither condition. “This result is in line with the observation that in the absence of a stress response was stronger in patients with GAD and major depression,” they wrote.