Fasting for Rheumatoid Arthritis

History and Rationale for Use
Fasting was a central component of many ancient medical and spiritual systems, but in modern use began in the United States with the natural and physical medicine movements of the late 19th century. Enthusiasm for the practice became widespread in the 1950s, particularly in Germany and Scandinavia.

Fasting leads to neuroendocrine changes, as was seen in an investigation of 22 patients with chronic pain conditions who participated in a 7-day fast. These patients had significant increases in urinary concentrations of noradrenaline, adrenaline, and cortisol, while control patients following a vegetarian diet showed no changes (Nutr. Neurosci. 2003;6:11-8).

Many patients with rheumatoid arthritis (RA) have reported benefits from dietary therapies such as fasting, and various hypotheses have been proposed to explain this. One suggestion is that fasting may improve gut microflora and changes in bacterial substances absorbed via the intestinal mucosa may influence inflammatory activity in the joints (Am. J. Clin. Nutr. 1999;70(suppl.):SA45-SA60).

The Essen Experience
In Essen, Germany, at the department of integrative medicine, Klinikum Essen-Mitte, a large prospective outcome study found significant benefits from a 7-day fasting program among inpatients with various chronic pain conditions including RA, osteoarthritis, fibromyalgia, and migraine.

Patients typically stay at this clinic for 10-14 days and undergo a program of lifestyle modification and mind-body medicine. Treatment costs for the program are reimbursable in the German health care system.

The clinic, which was founded in 1999, expanded in 2001 and began offering medically supervised therapeutic fasts to all patients except those with end-stage organ disease, liver or renal disease, gastric ulcers, or other comorbidities that could make it unsafe to fast.

Between 2001 and 2004, there were 2,787 patients who attended the clinic for 3 days or more. Of the 2,121 patients with complete discharge questionnaires, 952 fasted, 873 followed a normocaloric Mediterranean diet, and 296 followed other nutritional programs such as elimination diets or rice diets and were not included in the study.

Patients who elected to fast had 2 prefasting days when they consumed 800 calories from fruit, rice, or bread. During the 7 days of actual fasting, they were instructed to drink mineral water, herbal tea, vegetable broth, and juice, for a total caloric intake of 370 kcal. In the fast, foods were decaffeinat- ed and reintroduced. Eneras or laxatives were administered during the fast.

At the time of discharge from the clinic, disease-related complaints had improved to a significantly greater degree among fasting patients, with 344 (37%) reporting that their symptoms were “much better,” compared with 209 (24%) of the nonfasting patients reporting that level of improvement.

Overall, 743 (78%) of fasting patients reported improvements in their health status, while 176 (18%) reported no change and 33 (3%) reported worsening of their health (J. Altern. Complement. Med. 2005;11:601-7).

No serious adverse events were reported. Two patients developed hypotension when they continued diuretic use against medical advice, their sodium levels normalized when the diuretics were withdrawn. A total of 23 patients stopped fasting early because of hunger or irritability, and 4 experienced moderate gastric pain. Discomfort during fasting most commonly occurs on day 2 or 3, when the metabolism is shifting to lipolysis.

The most common complaint during fasting was headache, which was reported by about 50% of patients. “This was at least partly a result of coffee withdrawal,” lead investigator Andreas Michalsen, M.D., said in a discussion of the study at a symposium on alternative and complementary medicine sponsored by the universities of Exeter and Plymouth held in Exeter, England.

“Patients who fasted also seemed to have better success in maintaining beneficial long-term lifestyle changes such as exercise and relaxation,” Dr. Michalsen said.

Other Clinical Studies
A systematic review identified 31 original reports on fasting as a treatment for RA. Of the 4 trials that were controlled and methodologically adequate, the results of these four studies “support the hypothesis that a short period of fasting followed by a vegetarian diet can cause clinically relevant long-term improvement in patients with RA” (Scand. J. Rheumatol. 2001;30:1-10).

The most convincing evidence, according to the authors of the systematic review, was collected in a randomized, single-blind Norwegian study. The study assigned 27 patients to 4 weeks at a health farm where they fasted medically and then followed a vegetarian diet; another 26 patients stayed at a convalescent home for 4 weeks where they followed an omnivorous diet.

The groups were followed for an additional 12 months, during which significant differences were seen between the two in multiple disease-activity variables including tender joint count, swelling joint count, health assessment questionnaire scores, and global assessment (Lancet 1991;338:899-902).

A subsequent analysis of this cohort also found that patients who fasted and then followed a vegetarian diet had lower levels of leucocyte counts, rheumatoid factor, and the C3 and C4 complement components, suggesting that “dietary treatment can reduce disease activity in some patients with rheumatoid arthritis” (Scand. J. Rheumatol. 1995;24:85-93).

Many patients with rheumatoid arthritis report symptomatic improvement with fasting.

A large, prospective German study suggests that fasting followed by a vegetarian diet can lead to persistent clinical improvements.

The most common extraarticular features were subcutaneous nodules.