

Impact of nutrient intake and physical activity on the reduction of symptoms in females suffering from arthritis

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Sixty female patients suffering from arthritis in the age group of 40-60 years were selected from two hospitals of Ludhiana city and were divided into two groups viz., experimental (E) and controlled (C) group. General information, sign and symptoms, physical activity pattern and dietary pattern of the subjects was recorded by interview schedule. In group E nutrition counseling was imparted for three months at 15 days interval by individual and group contacts. The mean daily energy (67.3 to 83.3%) intake of the subjects increased significantly and intake of protein (92.32 to 81.07%) and total fat (207 to 185.30%) decreased significantly ($P=0.05$, $P=0.05$) in the subjects of group E. The mean daily intake of vitamins and minerals were increased significantly ($P=0.01$, $P=0.05$) by the subjects in group E. After nutrition counseling significant improvement was seen in food habits, physical exercise and dietary pattern of the subjects in group E. A significant reduction was seen in symptoms of disease like joint stiffness (90 to 33.3 %), Swelling (83.3 to 30%), redness (33.3 to 16.7%) and rash or itch (13.3 to 6.7%) in group E after nutrition counseling. Other less experienced symptoms *i.e.* feeling unwell (10 to 3.3%) and fatigue (16.7 to 3.3%) were also decreased. Physical activity of the subjects was increased and subjects were started doing exercise after nutrition counseling in-group E. It was also seen that 20 per cent of the subjects were doing exercise for 10-30 minutes, 60 per cent were doing for 30-60 minutes and 20 per cent were doing exercise for more than 60 minutes in group E. Therefore, it can be reported from the results that nutrition counseling significantly improved the food intake and physical activity of the patients suffering from the arthritis.

Key Words : Arthritis, Nutrient intake, Nutrition counseling, Physical exercise, Symptoms

How to cite this article : Kaur, Amritpal and Kochhar, Anita (2012). Impact of nutrient intake and physical activity on the reduction of symptoms in females suffering from arthritis. *Food Sci. Res. J.*, 3(2): 161-166.

INTRODUCTION

Arthritis is a term that includes a group of disorders that affect the joints and muscles. Its symptoms include joint pain, inflammation and limited movement of joints. When a joint is inflamed it may be swollen, tender, warm to the touch or red. Surrounding each joint is a protective capsule holding a lubricating fluid to aid in motion. Cartilage, a slippery smooth substance, covers most joints to assure an even fluid motion of the joint. With arthritis, the cartilage may be damaged, narrowed and lost by a degenerative process or by inflammation making movement painful (Mahan and Stump,

2000).

Typically a woman complains of pain, swelling and loss of mobility in the proximal joints of the fingers. There may be a previous history of 'muscle pain', tiredness, loss of weight and a general lack of well being. As time passes the symptoms 'spread' to other joints- the wrist, feet, knees and shoulders in order of frequency (Apley and Solomon, 1998). The first 5-10 years following the menopause, *e.g.*, from 50-60 years of age, women undergo a high rate of bone loss, *i.e.*, approximately 2 per cent per year. The loss of estrogens is so powerful that adding extra quantities of nutrients, such as calcium and vitamin D supplements, to the diet has little effect on the retention of calcium, as indicated by measurements of bone mass or density (Zacas and Wolinsky, 2003).

A patient of arthritis needs to bring changes in diet which is necessary for optimum health. It is important to maintain a low calcium to phosphorus ratio. If phosphorus content is high, then more calcium is lost from the body and will aggravate

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