R. N. Srivastava, Rheumatology 2012, 2:3
http://dx.doi.org/10.4172/2161-1149.S1.009

OMICS Group Conferences
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International Conference and Exhibition on
Orthopedics & Rheumatology

August 13-15, 2012 Hilton Chicago/Northbrook, USA

# Influence of dietary nutrients in prevalence of osteoarthritis (OA) knee

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**Objectives:** There is growing recognition of the importance of nutritional factors in the maintenance of bone and joint health and that nutritional imbalance combined with endocrine abnormalities may be involved in the pathogenesis of Osteoarthritis (OA). The present study sought to identify influence of dietary nutrients in prevalence of Osteoarthritis (OA) knee.

**Methods:** A cross sectional study - 150 Subjects were recruited from outpatient clinic with the diagnosis of knee Osteoarthritis (KOA) according to the criteria of American College of Rheumatology (ACR). Controls were age sex matched healthy subjects who were free from disease under study. OA was radiologically graded according to Kellgren-Lawrence (KL) grades. Body Mass Index (BMI) was recorded by standard procedure. Dietary nutrient intakes were analyzed by self administered questionnaire including three day dietary recall and food frequency table (FFQ).

**Results:** An average weight and BMI was significantly higher in subjects with OA knee in comparison to subjects without KOA. Among all dietary factors under study riboflavin, β-carotene, vitamin C and vitamin D was significantly lower in subjects having OA knee in comparison to subjects without OA knee. In unadjusted logistic regression, lower intake quartile of riboflavin, β-carotene, vitamin C and vitamin D having higher risk of OA knee in comparison to higher intake quartiles. However in adjusted analysis, risk of OA knee for riboflavin was diminished and β-carotene lose some strength but vitamin C and D having similar strength of risk of OA knee in quartile having lower intake. As the severity of disease was only defined by vitamin D intake.

**Conclusions:** The present cross sectional study revealed that lower intake of β- carotene, vitamin C and vitamin D intake is risk factor for knee OA. These nutrients might be an explanatory nutrient for the course of OA knee and might lead disease modifying effect.

## Biography

Prof. Rajeshwar Nath Srivastava was born on May 29th, 1958, at Lucknow in India He graduated in Medicine from KMC Manipal and did his MS in Orthopaedics from KGMedical College, Lucknow in 1988. Presently he is Prof and Unit Head in spinal cord injury (SCI) unit of the department of Orthopaedic Surgery, KG Medical College in India which caters SCI patients from North India and neighbouring countries like Bangladesh, Nepal and Pakistan. The 50 bed unit admits more than 600 patients of acute SCI in a year with an average of 12 per week. Prof RNS is a great researcher and has important contributions in the family of SCI researchers. He has developed an indigenized, innovative negative pressure device for the management of bedsores in SCI, a step wise reduction protocol (an algorithm) in management of cervical fracture dislocations. His research centres on the treatment modalities influencing neurological recovery in acute SCI. Further, Prof RN Srivastava has contributed extensively in the study of epidemiology, risk factors, the basic sciences (genetics, epigenetics) and translational health sciences in the field of Osteoarthritis and Osteoporosis in Indian population.

Prof RN Srivastava has extensively travelled abroad to present, and speak at annual meetings of ASIA, AAOS, OTA, NASS, SRS, SIS and OARSI in USA, AOA at Australia, ISCoS, EULAR and EFORT at UK, OARSI at Belgium, COA in Canada and SOA at Singapore. He is recipient of many awards at national and international levels, a recipient of Three Travelling Fellowships abroad and has many publications in a range of journals. His publications include 39 abstracts, 3 Review and 22 Research articles. He has been a Reviewer of manuscripts submitted for publications in many International Journals of repute including “BMJ”, “Spinal Cord”, “Spine” and “JSCM”. He is also a Reviewer of ad hoc research projects submitted for funding to the premier public funding agencies like DBT, DST and ICMR.

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