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[Rheumatol Int.](#) 1997;17(1):11-6.

## Antibody responses to gut bacteria in ankylosing spondylitis, rheumatoid arthritis, Crohn's disease and ulcerative colitis.

[Tiwana H](#), [Wilson C](#), [Walmsley RS](#), [Wakefield AJ](#), [Smith MS](#), [Cox NL](#), [Hudson MJ](#), [Ebringer A](#).

### Source

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### Abstract

Specific immunoreactive anti-Klebsiella antibodies are found in patients with ankylosing spondylitis (AS), a significant proportion of whom have occult inflammatory bowel disease. Molecular mimicry between Klebsiella or other bacterial antigens and HLA-B27 has been suggested in the pathogenesis of AS. The specificity of increased immunoreactivity against Klebsiella remains to be assessed against the abundant anaerobic bacterial flora, present either in healthy controls or in patients with ulcerative colitis (UC) and Crohn's disease (CD). Total immunoglobulin (Ig; IgG, IgA, IgM) immunoreactivity was measured by ELISA against Klebsiella pneumoniae, Proteus mirabilis, Escherichia coli and ten anaerobic isolates of the predominant normal bowel flora in 35 patients with active AS, 60 patients with inflammatory bowel disease (30 CD, 30 UC), 60 patients with active rheumatoid arthritis (RA) and 60 healthy controls. Ig immunoreactivity to K. pneumoniae was significantly elevated in AS ( $P < 0.001$ ), CD ( $P < 0.001$ ) and UC ( $P < 0.001$ ) patients compared with RA patients and healthy controls. Furthermore, Ig immunoreactivity to P. mirabilis was significantly elevated only in RA patients, compared with the other inflammatory groups ( $P < 0.001$ ) and controls ( $P < 0.001$ ). There was no significant antibody response against E. coli or the ten obligate anaerobes in any of the test groups. The data suggested an increased immune response to Klebsiella in patients with AS, UC, CD and to Proteus in patients with RA. The specificity of these responses in some patients supported a possible role for enteric Klebsiella

in the pathogenesis of AS and Proteus in RA. The role of Klebsiella in inflammatory bowel disease requires further study.

[Scand J Rheumatol.](#) 2003;32(2):108-13.

## Physiotherapy in subtropic climate improves functional capacity and health-related quality of life in Swedish patients with rheumatoid arthritis and spondylarthropathies still after 6 months.

[Hafström I](#), [Hallengren M](#).

### Source

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### Abstract

#### OBJECTIVE:

The objective was to prospectively evaluate the short as well as the long-term effects of intensive physiotherapy in a stable, sunny and warm climate on physical function and health related quality of life in patients with rheumatoid arthritis (RA) and spondylarthropathies (SpA).

#### METHODS:

Ninety-three Swedish patients with RA and SpA receiving physiotherapy for 4 weeks in Israel or Tenerife were followed for 6 months. Physical function was evaluated by the Swedish version of Stanford Health Assessment Questionnaire (HAQ) and quality of life by the Nottingham Health Profile (NHP) questionnaire.

#### RESULTS:

There were significant improvements in HAQ-scores and global NHP-scores as well as all subcategories of NHP immediately after the treatment abroad, effects that were still measurable after six months. At that time point nearly half of the patients had clinically meaningful reduction of HAQ-scores ( $> \text{or} = 0.25$ ).

#### CONCLUSION:

Physiotherapy in a warm and stable climate, with many hours of daily sunshine, is a valuable treatment complement for Swedish patients with RA and SpA.

## Correlation between UVB exposure and incidence of Rheumatoid Arthritis (Arkema, E et al 2013)

	Median UVB	Person years Follow up	No of cases Rheumatoid arthritis	Hazard Ratio
Low UVB	104	1,038,217	374	1.0
Medium UVB	113	1,120,965	340	0.84
High UVB	164	739,207	219	0.79
P trend				0.004