**Abstract** 

Ankylosing spondylitis (AS) is a chronic inflammatory disease affecting mainly

the spine and the sacroiliac joints. This disorder has a genetic background and is strongly

associated with HLA-B27 gene which occurs in about 90 % of patients. The prevalence

of ankylosing spondylitis usually correlates with the frequency of HLA-B27. The strength

of association HLA-B27 with AS varies between different populations and is also distinct for

individual alleles of HLA-B27 gene. Some alleles can increase a risk of ankylosing

spondylitis while others may have a protective effect. This work deals with the population

differences in the occurrence of HLA-B27 alleles and their relation to development

of ankylosing spondylitis.

**Key words:** ankylosing spondylitis, HLA-B27, allele, subtype, population differences