The effect of brucellosis on semen quality in rams was studied by means of artificially infecting five rams with a strain of Brucella ovis isolated in Kenya. Infection resulted in reduced semen quality including reduced total sperm output, poor motility and a high percentage of morphological abnormalities. Variation in semen quality both between and within rams appeared to be related to progress of the disease in the epididymis as well as to the distribution and severity of lesions in the reproductive tract.