The aim of this study was to obtain reference values for diastolic cardiac function parameters in healthy dogs and to ascertain if significant differences exist between dogs of various age, weight and sex. The study was performed on 82 healthy dogs of different age and breed. Eleven parameters were analyzed: peak velocity during early diastolic filling, acceleration time of early diastolic filling, deceleration time of early diastolic filling, total time of early diastolic filling, peak velocity during late diastolic filling, acceleration time of late diastolic filling, deceleration time of late diastolic filling, total time of late diastolic filling, total time of early and late diastolic filling, ratio of peak velocities during early and late diastolic filling, isovolumetric relaxation time. The Doppler measurements used for general assessment of diastolic function in healthy dogs were significantly influenced by body weight, heart rate and age. No significant differences were found between males and females. This study described the value of non-invasive echocardiographic assessment of diastolic function in healthy dogs.

**Key words**: diastolic function, myocardial, transthoracic echocardiography, dog