Echocardiography and Doppler sonography in the evaluation of cardiac structure and function

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SUMMARY

Physical activity increases the work load of the heart. The adjustments of the heart depend on the quality and quantity of the work performed. These adjustments concern the function and the morphology of the cardiovascular system. It is important to underline that these adjustments are not permanent and can disappear when physical activity is stopped. In young subjects the risks are very few while the benefits may be shown on a better and more armonic body structure. In the elderly the benefits can be achieved with a lesser cost for submaximal activities, but the risks are of course more frequent due the possible onset of cardiovascular disease. It is important to correctly recognize the limits whitin which the physical activity can be allowed because beneficial.

Echocardiography has given an important contribution to evaluate the morpho-functional adaptions of the athlete's heart. Similarly, it has proven useful in the detection of pathological cardiovascular modifications, asymptomatic or pausymptomatic, that do not allow certification to practise sport at agonistic levels.