

Listening to favorite music improves endothelial function in CAD

September 1 2013

Listening to favorite music improves endothelial function in patients with coronary artery disease, according to research presented at ESC Congress 2013 today by professor Marina Deljanin Ilic from Serbia. Music and exercise training combined produced the most benefit.

Professor Deljanin Ilic said: "In the setting of [cardiovascular risk factors](#) and cardiovascular disease the [endothelium](#) loses its normal function.¹ Since endothelium derived nitric oxide is necessary to maintain an adequate [vascular response](#), correction of [endothelial dysfunction](#) has become a goal of therapy."

She added: "Exercise training has been shown to improve [endothelial function](#) and is the cornerstone of a multifaceted programme of cardiovascular rehabilitation. However, little is known about the role of music in cardiovascular rehabilitation or the effects of listening to favourite music on endothelial function."

The current study evaluated the effects of listening to favourite music on endothelial function through changes of circulating blood markers of endothelial function: the stable end products of nitric oxide (NO_x), asymmetric dimethylarginine (ADMA), symmetric dimethylarginine (SDMA) and xanthine oxidase (XO) in 74 patients with stable CAD.

Patients were randomised to trained (T, n=33), music and trained (MT, n=31) and music (M, n=10) groups. Patients in the T and MT groups underwent 3 weeks of supervised [aerobic exercise](#) training at a

residential centre. In addition to exercise training, patients in the MT group listened to their favourite music for 30 minutes every day.

Patients in the M group received usual community care and listened to their favourite music for 30 minutes every day. Markers were measured and an [exercise test](#) performed at baseline and 3 weeks.

After 3 weeks the value of NO_x increased in groups T (from 33.0±13.0 to 42.8±11.0 µmol/l, p< 0.005) and MT (from 34.5±7.1 to 49.6±12.6 µmol/l, p

Citation: Listening to favorite music improves endothelial function in CAD (2013, September 1) retrieved 6 May 2024 from

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