Supplementary Information

Prolonged bedrest reduces plasma high-density lipoprotein levels linked to markedly suppressed cholesterol efflux capacity

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Supplementary Figures
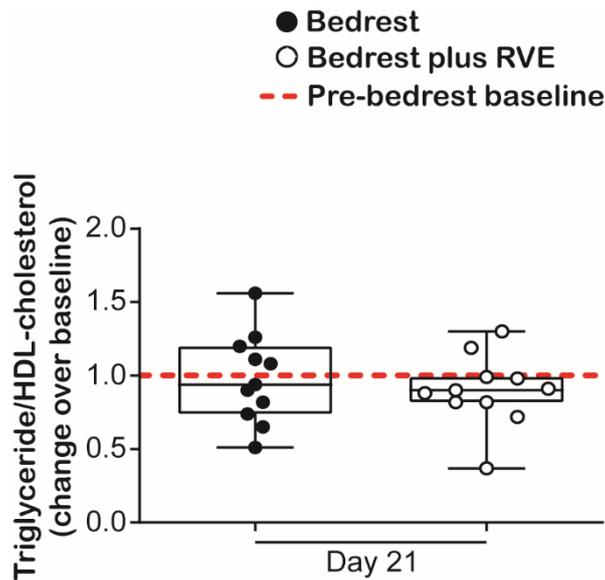
Supplementary Figure S1. Effects of prolonged bedrest on triglyceride/HDL-cholesterol ratio

The triglyceride/HDL-cholesterol ratio was evaluated for the bedrest (n = 11) and the bedrest plus RVE (n = 11) groups at pre-bedrest baseline and day 21 of bedrest. Differences between pre-bedrest baseline and day 21 of bedrest, as well as differences between the two groups at day 21, were analyzed with RM one-way ANOVA using the Sidak's multiple comparisons test (normally distributed data). Individual data are depicted on top of boxplots showing median and interquartile range, as well as minimum and maximum values (indicated by error bars). Significance level for the analyses was set to α = 0.05. No significant differences were observed between the two groups or between pre-bedrest baseline and day 21 for each group. Abbreviations represent: HDL, high-density lipoprotein; RVE, resistive vibration exercise.
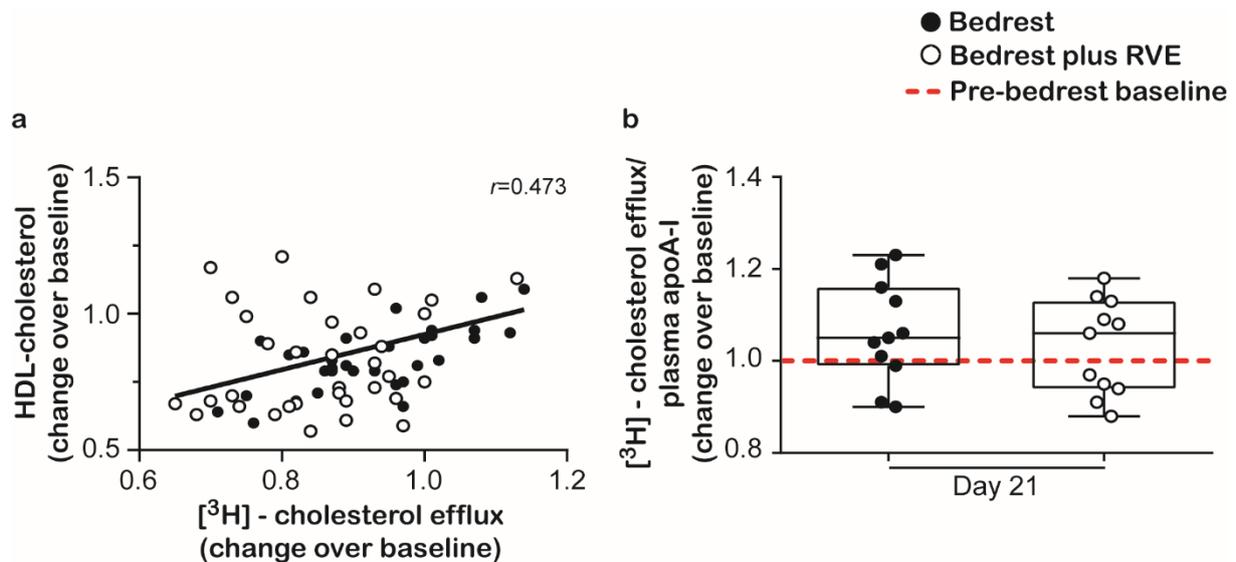
Supplementary Figure S2. Correlation of HDL-cholesterol with HDL cholesterol efflux capacity and functionality of HDL particles after adjustment for plasma apoA-I
(a) HDL-cholesterol levels for the bedrest (n = 11) and the bedrest plus RVE (n = 11) groups were associated with HDL cholesterol efflux capacity. Data are indicated in scatter plot and the Pearson correlation coefficient *r* is noted (normally distributed data). Significance level for the analyses was set to α = 0.05. (b) The ability of HDL to promote [³H]-cholesterol efflux from macrophages was adjusted for plasma apoA-I levels for the bedrest (n = 11) and the bedrest plus RVE (n = 11) groups at pre-bedrest baseline and day 21 of bedrest. Differences between pre-bedrest baseline and day 21 of bedrest, as well as differences between the two groups at day 21, were analyzed with RM one-way ANOVA using the Sidak's multiple comparisons test (normally distributed data). Individual data are depicted on top of boxplots showing median and interquartile range, as well as minimum and maximum values (indicated by error bars). Significance level for the analyses was set to α = 0.05. No significant differences were observed between the two groups or between pre-bedrest baseline and day 21 for each group. Abbreviations represent: apo, apolipoprotein; HDL, high-density lipoprotein; RVE, resistive vibration exercise.