

Supplemental Online Content

Scandalis L, Kitzman DW, Nicklas BJ, et al. Skeletal muscle mitochondrial respiration and exercise intolerance in patients with heart failure with preserved ejection fraction. *JAMA Cardiol.* Published online May 10, 2023. doi:10.1001/jamacardio.2023.0957

eTable 1. Correlation Between Skeletal Muscle Respiration and Physical Function

eTable 2. Correlation Between Skeletal Muscle Respiration and Peak VO₂ by HFpEF Status

eFigure 1. Representative High-Resolution Respirometry Trace

eFigure 2. Association Between Skeletal Muscle Respiration and Peak VO₂ in HFpEF and Healthy Controls

This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Correlation Between Skeletal Muscle Respiration and Physical Function

Physical Function Measurements	CXI, N _P		CXI+CXII, NS _P		MAX ETS, NS _E	
	<i>r</i>	<i>p</i> -value	<i>r</i>	<i>p</i> -value	<i>r</i>	<i>p</i> -value
Peak VO ₂ , mL/kg/min	0.70	<.001	0.69	<.001	0.69	<.001
Peak VO ₂ , mL/min	0.43	<.001	0.47	<.001	0.41	<.001
6-minute walk distance	0.69	<.001	0.69	<.001	0.69	<.001
SPPB total	0.44	<.001	0.44	<.001	0.46	<.001
SPPB gait speed	-0.51	<.001	-0.52	<.001	-0.53	<.001
SPPB chair time	-0.53	<.001	-0.52	<.001	-0.55	<.001
Leg Strength – right	0.24	.07	0.26	.05	0.21	.11
Leg Strength - left	0.42	.002	0.44	<.001	0.41	.002

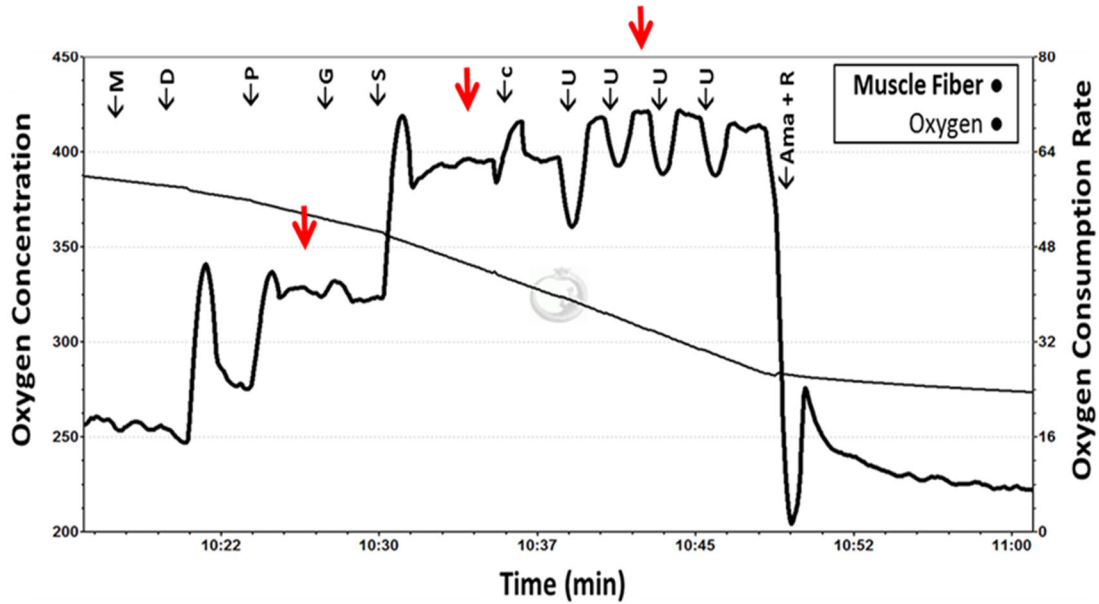
Pearson correlation coefficients and p-values for each association are shown.

CXI, N_P, NADH-linked pathway through mitochondrial Complex I; CXI+CXII, NS_P, NADH/Succinate combined pathway through Complexes I and II; MAX ETS, NS_E, maximum electron transport in the NADH/Succinate ET state; *r*, Pearson correlation coefficient; Peak VO₂, peak exercise oxygen consumption; SPPB, Short physical performance battery.

eTable 2. Correlation Between Skeletal Muscle Respiration and Peak VO₂ by HFpEF Status

	Peak VO ₂ , mL/kg/min			
	HFpEF (N=27)		HC (N=45)	
	R	p-value	r	p-value
CXI, N_P	0.45	.0194	0.26	.0787
CXI+CXII, NS_P	0.47	.0145	0.31	.0393
MAX ETS, NS_E	0.28	.1508	0.28	.0642

eFigure 1. Representative High-Resolution Respirometry Trace



Red arrows (from left to right) depict respiratory control states for OXPHOS capacity of the NADH pathway through Complex I (complex I, NP), the convergent NADH- and succinate pathway through Complex I and Complex II (complex I+complex II, NS_P), and the maximal electron transfer capacity of the systems-pathway (maximal capacity, NS_E).

eFigure 2. Association Between Skeletal Muscle Respiration and Peak VO₂ in HFpEF and Healthy Controls

