

Table S5

Correlation between data obtained with physical activity monitors and other outcome measures in CF

Participants N, age category	Instrument	Parameters (units)	Comparison parameter (units)	Results	Statistic	Author
Cross sectional correlation with other measures						
20 adults	SenseWear	Time spent in moderate activity (min/day)	VO _{2peak} relative to body weight	r=0.503, p=0.02	Spearman's	Savi 2013 [A:2]
		Time spent in moderate activity (min/day) weekday	VO _{2peak} relative to body weight	r=0.588, p=0.006		
		Time spent in moderate activity (min/day)	VO _{2peak} absolute	r=0.503, p=0.02		
		Time spent in activity beyond threshold for moderate (min/day)	VO _{2peak} absolute	r=0.50, p=0.02		
		Time spent in activity beyond threshold for vigorous(min/day)	VO _{2peak} absolute	r=0.51, p=0.02		
		Time spent in moderate activity (min/day) weekdays	VO _{2peak} (%pred)	r=0.508, p=0.02		
		Time spent in moderate activity (min/day) weekdays	Watt max	r=0.459, p=0.04		
		Time spent in vigorous activity (min/day)	VO _{2peak}	r=0.545, p=0.01		
		Time spent in vigorous activity (min/day)	Watt max	r=0.547, p=0.01		
		Total Energy expenditure	VE _{max}	r=0.757, p=0.0001		
		Time spent in moderate activity (min/day) weekday	VE _{max}	r=0.436, p=0.05		
		Time spent in moderate activity (min/day) weekend	VE _{max}	r=0.435, p=0.05		
		Time spent in vigorous activity (min/day)	VE _{max}	r=0.568, p=0.008		
		Total Energy expenditure weekdays	FEV ₁	r=0.524, p=0.01		
		Total Energy expenditure weekends	FEV ₁	r=0.511, p=0.02		
		Time spent in all activity categories	6MWT	P=NS		
Step count (steps/day)	6MWT	r=0.488, p=0.02				

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20 adults	SenseWear	Time spent in mild intensity activity (min/day)	Quadriceps force (%pred)	p=NS	Pearson's and Spearman's	Troosters 2009 [A:7]
			6MWD (m)	p=NS		
		Time spent in moderate intensity activity (min/day)	Quadriceps force (%pred)	p=0.03		
			6MWD (m)	p=NS		
			VO ₂ peak (%pred)	r=0.56, p<0.02		
		Time spent in vigorous intensity activity (min/day)	Quadriceps force (%pred)	p=0.02		
			6MWD (m)	p=0.04		
			VO ₂ peak (%pred)	r=0.52, p<0.02		
		Step count (steps/day)	Lung function (FEV ₁ , FVC)	p=NS		
			Quadriceps force (% pred)	p=NS		
			VO ₂ peak (%pred)	r=0.47, p<0.05		
		19 adults	SenseWear	Step count (steps/day)		
Time >4.8METs (min)	Muscle Twitch (TW _{qpot})			r=0.61, p=0.007		
38 adults	SenseWear	Step count (steps/day)	Anthropometrics	p=NS	Correlation	Wieboldt 2012 [A:4]
			Strength	p=NS		
			Lung function	p=NS		
			Blood tests	p=NS		
50 adults	SenseWear	Energy expenditure (METs) Vigorous	Z scores lumbar, Hip, Femoral	p=NS	Pearson's and Spearman's	Garcia 2011 [A:5]
			Kyphosis	r=-0.26, p<0.05		
			Vertebral fracture	p=NS		
			Scoliosis	p=NS		
		Energy expenditure (METs) Moderate	Z scores lumbar, Hip, Femoral	r=range 0.59 to 0.74, p<0.01		
			Kyphosis	p=NS		
			Vertebral fracture	p=NS		
			Scoliosis	p=NS		
		Energy expenditure (METs) Low	Z scores lumbar, Hip, Femoral	r=range 0.36 to 0.54, p<0.01		
			Kyphosis	p=NS		
			Vertebral fracture	p=NS		
			Scoliosis	p=NS		
		Step count (steps/day)	Z scores lumbar, Hip, Femoral	r =range 0.29 to 0.32, p<0.01		
			Kyphosis	r=0.36, p<0.05		
Vertebral fracture	p=NS					

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			Scoliosis	p=NS		
28 Children and adolescents	ActiGraph	Physical activity (counts/min)	Quality of life (CFQ-R)	p=NS	Linear regression	Groeneveld 2012 [A:8]
71 children, adolescents, adults	ActiGraph	Accelerometer count (units/day)	VO _{2peak} (mL/min/kg)	p<0.001	Linear regression	Hebestreit 2006 [A:10]
			VO _{2peak} (%pred)	p<0.01		
		Time spent in moderate to vigorous activity (min/day)	VO _{2peak} (mL/min/kg)	p<0.001		
			VO _{2peak} (%pred)	p<0.001		
		Accelerometer count (units/day)	VO _{2peak} ,	Independent predictor of VO _{2peak} , p<0.01		
Time spent in moderate to vigorous activity (min/day)	VO _{2peak}	Independent predictor of VO _{2peak} , p<0.001				
30 adolescents and adults	DigiWalker SW401 pedometer	Step rate (steps/hr) and step count (steps/day)	FEV ₁ %pred	r=0.53, p=0.014	NR	Quon 2012 [A:18]
			CF Respiratory Symptoms Diary (difficulty breathing, cough, chest tightness, tired)	p<0.05		
			CF Respiratory Symptoms Diary (cough mucous, wheeze, fever, chill)	p=NS		
			CF Respiratory Symptoms Diary (worried, cranky, frustrated)	p<0.05		
			CF Respiratory Symptoms Diary (sad)	p=NS		
			CF Respiratory Symptoms Diary (missed work/school, reduced usual activity)	p<0.05		
			CF Respiratory Symptoms Diary (difficulty sleeping)	p=NS		
			CF Respiratory Symptoms Diary (well)	r=0.53, p=0.014		

Abbreviations: N=number; 6MWD=6 Minute Walk Distance; %pred=percentage of predicted; FEV₁ =forced expiratory volume in one second; FVC=forced vital capacity; hr=hour; MET=metabolic equivalent; NS=not significant; TWq_{pot}=potentiated quadriceps twitch force; VE_{max}=maximal ventilation; VO_{2peak}=peak oxygen uptake

Note: All references are listed in the online supplementary material reference list