

Online Supplement
Differences in Sedentary Time, Light Physical Activity, and Steps Associated with Better COPD Quality of Life

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e-Table 1:

Abbreviations: Adj = Adjusted, CRQ = Chronic Respiratory Disease Questionnaire, FEV1% = Percentage of Forced Expiratory Volume in 1 Second, LASSO = Least Absolute Shrinkage and Selection Operator, PA = Physical Activity, R2 = *R*-squared

Notes: All models adjusted for FEV1% and age. Sex, marital status (married vs. all others), education (high school graduate and above vs. all others) were adjusted for if they were selected by LASSO regression. Bolded p-values are considered significant using $P < 0.05$.

e-Table 2:

Abbreviations: CRQ = Chronic Respiratory Disease Questionnaire, R2 = *R*-squared

Notes: Estimates and confidence intervals are calculated from the beta coefficients of multivariable models regressing physical activity measures on CRQ subdomain scores. The estimates represent the average difference between patients with 1-point difference in corresponding CRQ subdomain scores. All models adjusted for FEV1% and age. Sex, marital

status (married vs. all others), education (high school graduate and above vs. all others) were adjusted for if they were selected by LASSO regression. All Ns are 292 because bootstrapping samples the complete dataset with replacement.

e-Table 3:

Abbreviations: CRQ = Chronic Respiratory Disease Questionnaire

Notes: Bolded p-values are considered significant using $P < 0.05$.

CRQ Subdomain	Activity	N	CRQ Estimate	P	LCI	UCI	Sex	P	Age	P	Marital (Not Married)	P	Education (Low)	P	FEV1	P	AIC	R2	Adj R2
Dyspnea	Steps	290	6.60	<0.01	4.82	8.39	NA	NA	-0.77	<0.01	5.90	0.01	NA	NA	0.30	<0.01	2549	0.30	0.29
Dyspnea	Sedentary Time	239	-0.45	<0.01	-0.74	-0.15	NA	NA	0.05	0.04	NA	NA	NA	NA	0.01	0.33	1197	0.05	0.04
Dyspnea	Light PA	241	0.79	<0.01	0.40	1.17	NA	NA	0.02	0.45	NA	NA	NA	NA	-0.01	0.69	1330	0.07	0.06
Fatigue	Steps	292	5.00	<0.01	3.09	6.92	NA	NA	-0.75	<0.01	6.08	0.01	10.29	0.02	0.41	<0.01	2587	0.25	0.24
Fatigue	Sedentary Time	241	-0.18	0.22	-0.48	0.11	NA	NA	0.04	0.06	NA	NA	NA	NA	0.00	0.73	1214	0.02	0.01
Fatigue	Light PA	243	0.46	0.02	0.08	0.85	NA	NA	0.03	0.33	NA	NA	NA	NA	0.01	0.67	1351	0.03	0.02
Emotions	Steps	292	3.43	<0.01	1.40	5.46	NA	NA	-0.80	<0.01	6.17	0.01	10.80	0.02	0.41	<0.01	2602	0.21	0.20
Emotions	Sedentary Time	241	-0.19	0.24	-0.51	0.13	NA	NA	0.04	0.05	NA	NA	NA	NA	0.00	0.74	1214	0.02	0.01
Emotions	Light PA	243	0.29	0.17	-0.13	0.71	NA	NA	0.02	0.58	1.01	0.05	NA	NA	0.01	0.61	1352	0.03	0.02
Mastery	Steps	292	3.66	<0.01	1.84	5.48	NA	NA	-0.76	<0.01	6.26	0.01	9.94	0.02	0.37	<0.01	2597	0.22	0.21
Mastery	Sedentary Time	241	-0.16	0.27	-0.44	0.13	NA	NA	0.04	0.05	NA	NA	NA	NA	0.01	0.65	1214	0.02	0.01
Mastery	Light PA	243	0.21	0.25	-0.16	0.58	NA	NA	0.02	0.52	1.03	0.04	NA	NA	0.00	0.74	1352	0.03	0.01

e-Table 2. Bootstrapped Predicted Difference in Activity Counts between Average and 1-Point Better CRQ

Sedentary Time
(Minutes Per Day)
(N=292)
Mean: 767.6

	Diff	95% CI
Dyspnea	-29.3	(-48.2, -12.6)
Fatigue	-11.5	(-32.0, 7.6)
Mastery	-7.4	(-27.3, 10.2)
Emotions	-8.5	(-29.6, 12.1)

Light Physical Activity
(Minutes Per Day)
(N=292)
Mean: 177.7

	Diff	95% CI
Dyspnea	22.8	(10.3, 33.8)
Fatigue	14.0	(0.7, 25.5)
Mastery	6.1	(-4.1, 17.2)
Emotions	7.9	(-5.6, 21.1)

Steps Per Day
(N=292)
Mean: 2,960

	Diff	95% CI
Dyspnea	799	(576, 1,030)
Fatigue	598	(366, 828)
Mastery	432	(234, 698)
Emotions	404	(147, 650)

e-Table 3. Spearman Rank Correlations between Physical Activity and CRQ Subdomain Scores

	Sedentary Time	Light Physical Activity	Steps
Dyspnea	-0.14	0.23	0.38
Fatigue	-0.06	0.15	0.25
Mastery	-0.03	0.11	0.23
Emotions	-0.04	0.13	0.13