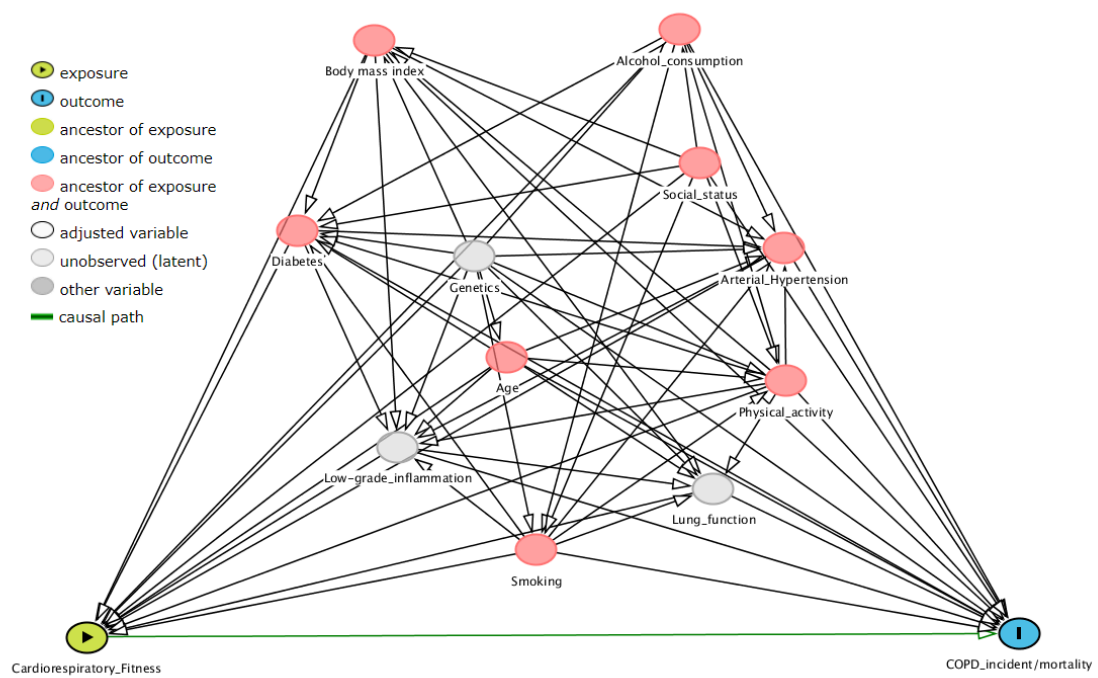


Supplement

1. Directed acyclic graphs (DAG)



The graphs depict the assumed causal processes of the measured, and unmeasured variables.

The graphs were created using online freeware DAGitty version 2015 (<http://www.dagitty.net>).

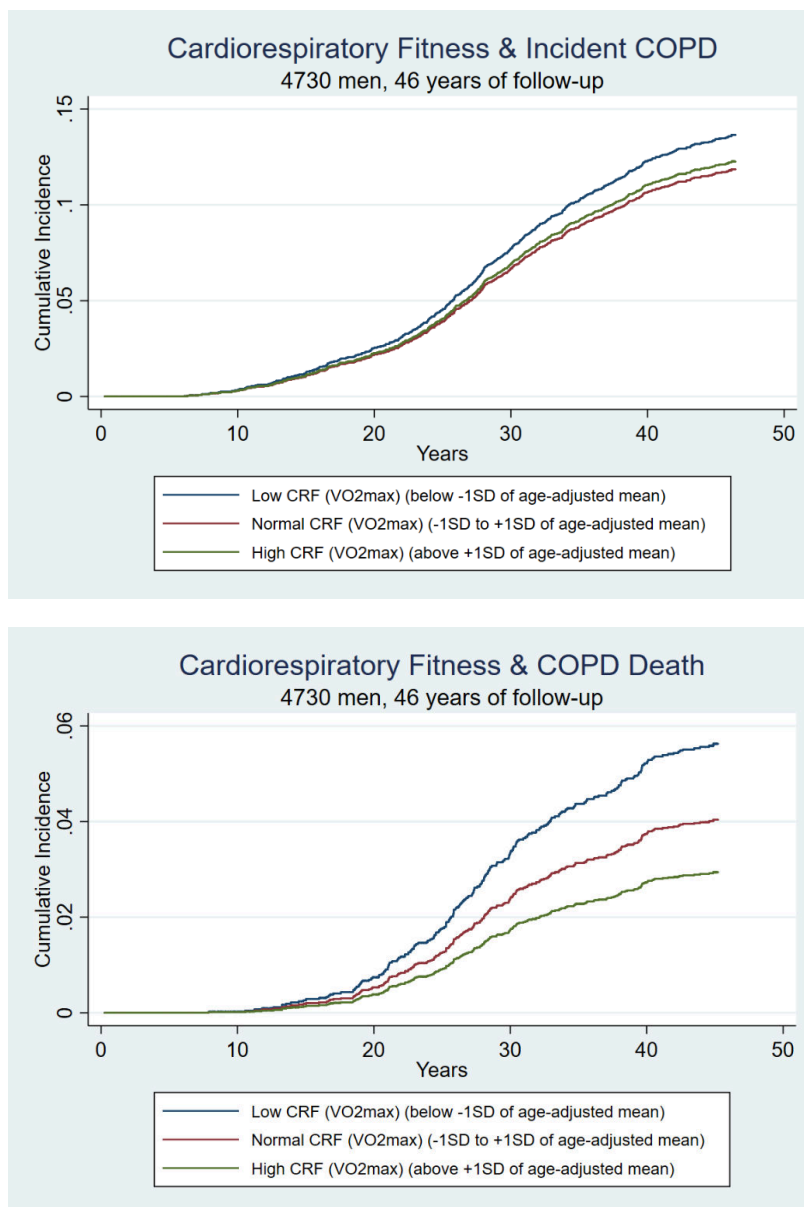
2. Full adjusted cox model with variables.

Incident COPD			
Variable	Hazard Ratio	95% Confidence Interval	p-value
CRF, VO2Max			
Low CRF (bottom 15.8%) (ref.)	1	-	-
Normal CRF	0.79	0.63-0.99	0.038
High CRF (top	0.69	0.52-0.91	0.01
Self-reported physical activity			
Low (ref.)	1	-	-
Moderate	0.86	0.79-1.06	0.159
High	0.74	0.54-1.02	0.067
Grams tobacco/day	1.02	1.01-1.02	0.001
Age	1.08	1.06-1.09	<0.001
BMI			
<20 kg/m ²	1.12	0.94-1.32	0.20
20-25 kg/m ² (ref.)	1	-	-
>25 kg/m ²	1.16	0.81-1.65	0.42
Arterial hypertension	0.99	0.84-1.18	0.93
Diabetes mellitus	0.92	0.23-3.70	0.91
Alcohol consumption			
Light (0-2 units/day) (ref.)	1	-	-
Moderate (3-5 units/day)	1.50	1.21-1.85	<0.001
Heavy (>5 units/day)	1.39	0.88-2.19	0.16
Socioeconomic status			
High (ref.)	1	-	-
Middle	1.33	1.02-1.73	0.037
Low	1.80	1.41-2.30	<0.001

CRF: Cardiorespiratory fitness, BMI: Body mass index.

Death from COPD			
Variable	Hazard Ratio	95% Confidence Interval	<i>p</i> -value
CRF, VO2Max			
Low CRF (bottom 15.8%) (ref.)	1	-	-
Normal CRF	0.65	0.46-0.91	0.012
High CRF (top	0.38	0.23-0.61	<0.001
Self-reported physical activity			
Low (ref.)	1	-	-
Moderate	0.95	0.67-1.34	0.76
High	1.11	0.68-1.82	0.66
Grams tobacco/day	1.02	1.01-1.04	0.001
Age	1.13	1.06-1.16	<0.001
BMI			
<20 kg/m ²	1.32	1.00-1.73	0.050
20-25 kg/m ² (ref.)	1	-	-
>25 kg/m ²	1.03	0.55-1.93	0.94
Arterial hypertension	1.14	0.87-1.50	0.33
Diabetes mellitus	2.84	0.70-11.5	0.15
Alcohol consumption			
Light (0-2 units/day) (ref.)	1	-	-
Moderate (3-5 units/day)	1.39	0.98-1.96	0.064
Heavy (>5 units/day)	1.50	0.73-3.09	0.16
Socioeconomic status			
High (ref.)	1	-	-
Middle	1.06	0.70-1.62	0.78
Low	1.48	1.01-2.16	0.043
CRF: Cardiorespiratory fitness, BMI: Body mass index.			

3. Cumulative incidence curves of incident COPD and death from COPD



The graphs depict multi-adjusted cumulative incidence curves for incident COPD and death from COPD according to category of CRF. Adjustment was made for age, body mass index (BMI) (<20, 20-25, >25 kg/m²), self-reported physical activity (low, moderate, high), smoking status (never, former, active), tobacco consumption (grams/day), alcohol consumption (0-2 units/day, 3-5 units/day, >5 units/day), arterial hypertension, diabetes mellitus, and socioeconomic status (high, moderate, low).