

Online supplement 1

Inclusion criteria for healthy subjects

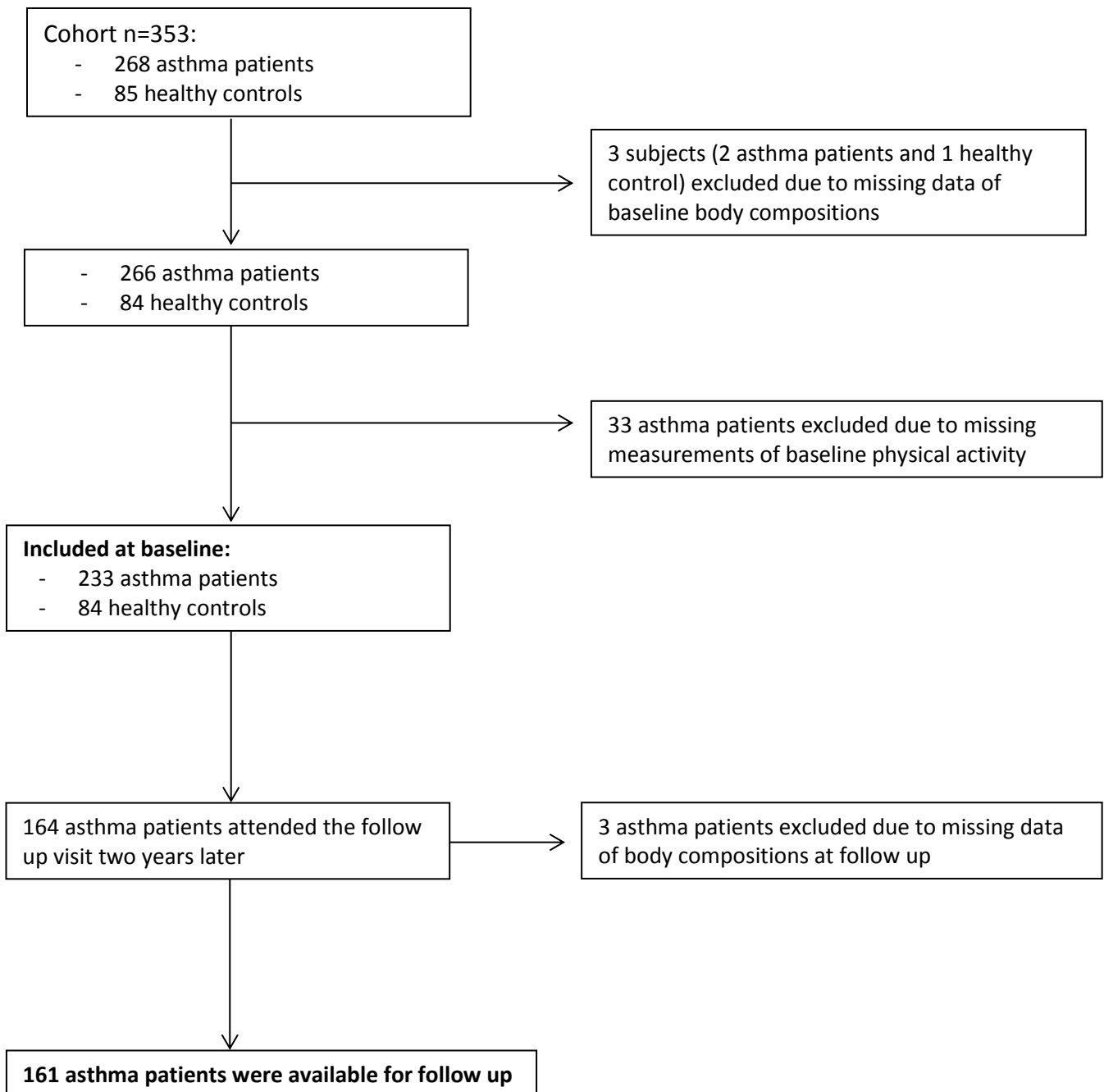
- Age \geq 18 years
- No respiratory symptoms consistent with asthma or COPD
- Normal spirometry

Inclusion criteria for asthma patients

- Patients had to be in specialist care for >3 months
- The diagnosis of asthma was confirmed by the study physicians before inclusion according to current Guidelines
- Patients had to have stable disease without acute exacerbations or respiratory tract infections within four weeks prior to the study visit.

Online supplement 2

Flow diagram of the study: number of included subjects at baseline and follow up



Online supplement 3

Baseline clinical characteristics of patients with asthma and healthy controls aged 40-64				
Characteristic	Healthy controls	Controlled asthma	Uncontrolled asthma	P-value
n	36	68	75	-
Age, years	55.2 ±6.5	51.2 ±13.5	52.6 ±14.5	0.11
Sex (% male)	41	47	40	0.70
BMI, kg/m ²	24.9 ±2.9	27.1 ±4.6	29.1 ±5.5	<0.001
ACT score	-	22.8 ±1.6	13.3 ±4.0	<0.001
ACQ5 score	-	0.61 ±0.53	2.4 ±1.1	<0.001
Average daily steps	7277 (6124-8880)	7924 (6598-10270)	6571 (4851-9088)	0.001
Average daily time of at least moderate activity, min	111 (70-162)	127 (93-191)	87 (50-171)	0.007
SM (%)	34± 6	33 ±6	31 ±6.0	0.002
FM (%)	32 ± 7	32 ±7	36 ±7.0	<0.001
<p>Values are presented in mean and standard deviation or median and interquartile range. BMI: body mass index (kg/m²), ACT: asthma control test, ACQ: asthma control questionnaire. SM: skeletal muscle mass, FM: fat mass. The post-hoc analysis indicated no significant differences between controlled asthma patients and healthy controls in average daily steps (p=0.14), time in moderate activity (p=0.11), SM (p=0.97), or FM (p=0.99).</p>				

Online supplement 4

Predictors of body composition, regressions without asthma control

Predictors of body composition in asthma			
Predictors of skeletal muscle mass			
Factor	Estimator	Standard error	P-value
Male sex	7.501 e ⁻⁰²	4.774e ⁻⁰³	<0.001
OCS use	-1.455 e ⁻⁰²	6.142 e ⁻⁰³	0.018
Age	-6.981 e ⁻⁰⁴	1.646 e ⁻⁰⁴	<0.001
Physical activity	2.904 e ⁻⁰⁴	2.738 e ⁻⁰⁵	<0.001
ICS dose	-1.408 e ⁻⁰⁵	5.073e ⁻⁰⁶	<0.01
Intercept	3.059 e ⁻⁰¹	1.031e ⁻⁰²	<0.001
Predictors of fat mass			
Male sex	-7.766 e ⁻⁰²	5.994 e ⁻⁰³	<0.001
OCS use	2.227 e ⁻⁰²	9.083 e ⁻⁰³	<0.01
Age	1.673 e ⁻⁰⁴	2.089 e ⁻⁰⁴	0.14
Physical activity	-4.182 e ⁻⁰⁴	3.419 e ⁻⁰⁵	<0.001
ICS dose	1.728 e ⁻⁰⁵	8.533 e ⁻⁰⁶	<0.01
Intercept	4.029 e ⁻⁰¹	1.451 e ⁻⁰²	<0.001
Multivariate regressions including predictors of SM: multiple R ² =0.63, p< 0.001, and predictors of fat mass: multiple R ² =0.59, p< 0.001. Age in years, sex: being male, OCS: regular oral corticosteroid use (categorical variable), physical activity: average daily time in moderate activity in minutes, ICS dose: fluticasone equivalent in µg.			