

Child and adult population (n=277)	Univariate logistic regression			Multivariate logistic regression		
	p	HR	95%CI	p	HR	95%CI
USLS <0.85	0.557	0.72	0.23-2.19	-	-	-
ASHR >1.05	<0.001	4.44	2.36-8.36	0.035	3.48	1.09-11.11
thumb sign	0.018	1.92	1.11-3.29	0.643	1.32	0.41-4.20
wrist sign	0.023	1.79	1.09-2.95	0.939	0.96	0.32-2.84
pectus carinatum	<0.001	4.86	2.68-8.83	0.048	3.00	1.01-8.92
pectus excavatum	0.899	1.04	0.59-1.82	-	-	-
scoliosis	0.019	2.17	1.14-4.14	0.557	1.40	0.45-4.35
assymetry of the chest	<0.001	3.41	1.91-6.08	0.410	1.58	0.53-4.65
joint laxity	0.662	1.12	0.67-1.90	-	-	-
joint hyperextension	0.207	0.73	0.44-1.19	-	-	-
reduced elbow extension	0.002	5.94	1.88-18.78	0.816	1.27	0.17-9.60
dolichocephaly	0.761	1.09	0.64-1.86	-	-	-
malar hypoplasia	0.286	1.31	0.80-2.15	-	-	-
enophthalmia	0.051	1.69	1.00-2.87	0.381	1.53	0.59-3.93
micrognation	0.015	1.87	1.13-3.09	0.336	0.62	0.23-1.64
retrognathia	0.130	1.53	0.88-2.64	-	-	-
downslanting palpebral fissures	<0.001	3.12	1.84-5.28	0.167	1.94	0.76-4.98
gothic palate	<0.001	6.44	3.73-11.14	0.221	1.79	0.71-4.53
dental crowding	0.001	2.38	1.42-3.98	0.403	1.52	0.57-4.06
stretch marks	<0.001	3.40	2.01-5.74	0.159	2.04	0.76-5.50
hindfoot deformity	0.001	2.51	1.46-4.32	0.005	4.54	1.57-13.20
flat feet	0.249	1.35	0.81-2.25	-	-	-
myopia≥3D	<0.001	5.03	2.71-9.36	0.224	2.00	0.65-6.15
lens subluxation	<0.001	66.54	15.54-284.95	<0.001	67.12	6.51-691.63
excessive growth / remarkably high stature	<0.001	2.76	1.66-4.61	0.001	5.46	1.99-14.93
deficiency in weight	0.959	1.02	0.58-1.78	-	-	-
hernias	0.001	3.12	1.58-6.17	0.004	6.45	1.83-22.67
idiopathic pulmonary oedema	0.091	3.38	0.83-13.81	0.758	1.43	0.15-14.10

Table S1. Univariate and multivariate logistic analyses in order to establish independent predictors for the diagnosis of MFS in the entire population (children and adults)

Child population (n=178)	Univariate logistic regression			Multivariate logistic regression		
	p	HR	95%CI	p	HR	95%CI
USLS <0.85	0.984	0.98	0.19-5.07	-	-	-
ASHR >1.05	<0.001	6.84	2.99-15.64	0.003	11.48	2.29-57.48
thumb sign	0.097	2.00	0.89-4.54	0.888	1.13	0.21-6.03
wrist sign	0.088	1.84	0.91-3.69	0.875	0.88	0.18-4.36
pectus carinatum	0.027	2.57	1.11-5.95	0.808	0.80	0.13-4.94
pectus excavatum	0.329	1.44	0.70-2.96	-	-	-
scoliosis	0.175	1.81	0.77-4.25	-	-	-
assymetry of the chest	<0.001	8.62	2.91-25.51	0.119	4.33	0.69-27.38
joint laxity	0.922	1.04	0.48-2.24	-	-	-
joint hyperextension	0.621	0.84	0.41-1.71	-	-	-
reduced elbow extension	0.013	5.36	1.43-20.04	0.396	3.02	0.24-38.59
dolichocephaly	0.132	1.80	0.84-3.85	-	-	-
malar hypoplasia	0.801	1.09	0.55-2.20	-	-	-
enophthalmia	0.441	1.33	0.64-2.77	-	-	-
micrognation	0.008	2.61	1.28-5.31	0.545	0.58	1.00-3.39
retrognathia	0.074	1.97	0.94-4.13	0.919	0.91	0.15-5.63
downslanting palpebral fissures	0.001	3.58	1.74-7.39	0.152	2.71	0.69-10.58
gothic palate	<0.001	6.78	3.17-14.52	0.534	1.59	0.37-6.78
dental crowding	0.005	2.79	1.35-5.75	0.228	2.43	0.57-10.26
stretch marks	0.112	1.82	0.87-3.79	-	-	-
hindfoot deformity	<0.001	3.73	1.82-7.67	0.017	6.02	1.39-26.15
flat feet	0.139	1.77	0.83-3.76	-	-	-
myopia≥3D	0.002	4.02	1.68-9.59	0.732	0.67	0.07-6.59
lens subluxation	<0.001	94.29	11.93-745.00	0.001	78.91	5.51-1130.44
excessive growth / remarkably high stature	0.020	2.35	1.15-4.83	0.076	3.87	0.87-17.25
deficiency in weight	0.791	1.11	0.52-2.36	-	-	-
hernias	0.045	2.63	1.02-6.75	0.044	7.25	0.87-17.25
idiopathic pulmonary oedema	0.256	3.17	0.43-23.22	-	-	-

Table S2. Univariate and multivariate logistic analyses in order to establish independent predictors for the diagnosis of MFS in the child population

Adult population (n=99)	Univariate logistic regression			Multivariate logistic regression		
	p	HR	95%CI	p	HR	95%CI
USLS <0.85	0.442	0.42	0.05-3.89	-	-	-
ASHR >1.05	0.099	2.51	0.84-7.51	0.810	0.73	0.06-9.13
thumb sign	0.002	4.18	1.71-10.22	0.269	3.78	0.36-40.07
wrist sign	0.080	2.17	0.91-5.19	0.622	0.56	0.05-5.74
pectus carinatum	0.001	6.64	2.25-19.56	0.131	4.75	0.63-35.79
pectus excavatum	0.420	1.66	0.48-5.71	-	-	-
scoliosis	0.277	1.89	0.60-5.95	-	-	-
assymetry of the chest	0.226	1.75	0.71-4.31	-	-	-
joint laxity	0.032	2.59	1.09-6.15	0.179	5.82	0.45-76.04
joint hyperextension	0.279	1.65	0.67-4.06	-	-	-
reduced elbow extension	0.037	1.74	1.43-3.27	0.999		
dolichocephaly	0.765	1.17	0.43-3.17	-	-	-
malar hypoplasia	0.410	1.43	0.61-3.33	-	-	-
enophthalmia	0.041	2.53	1.04-6.17	0.040	9.60	1.11-82.89
micrognation	0.558	0.78	0.33-1.82	-	-	-
retrognathia	0.770	1.15	0.45-2.97	-	-	-
downslanting palpebral fissures	0.010	3.60	1.35-9.57	0.807	0.77	1.00-6.23
gothic palate	<0.001	5.47	2.17-13.75	0.908	1.13	0.14-9.42
dental crowding	0.093	2.14	0.88-5.21	0.361	2.60	0.34-20.18
stretch marks	0.001	4.68	1.88-11.67	0.114	5.11	0.68-38.53
hindfoot deformity	0.013	13.68	1.73-108.24	0.119	10.61	0.55-206.61
flat feet	0.238	1.67	0.71-3.93	-	-	-
myopia≥3D	0.014	3.46	1.29-9.27	0.804	1.31	0.16-10.82
lens subluxation	0.001	30.11	3.82-237.45	0.998		
excessive growth / remarkably high stature	0.070	2.19	0.94-5.13	0.044	14.54	1.07-197.83
deficiency in weight	0.519	1.42	0.49-4.12	-	-	-
hernias	0.082	2.87	0.88-9.39	0.574	2.16	0.15-31.86
idiopathic pulmonary oedema	0.459	2.33	0.25-21.74	-	-	-

Table S3. Univariate and multivariate logistic analyses in order to establish independent predictors for the diagnosis of MFS in the adult population

Feature	Adults (n=99)		
	Women (n=54)	Men (n=45)	p
age	31.5 ± 9.5	31.5 ± 9.5	0.548
BMI	22.1 ± 4.8	21.5 ± 4.6	0.536
body weight	67.2 ± 15.6	78.9 ± 15.9	<0.001
height	174.3 ± 9.6	191.6 ± 7.4	<0.001
ASHR >1.05	12 (22,2)	11 (24,4)	0.917
USLS < 0.85	47 (87,0)	41 (91,1)	1.000
joint laxity	37 (68,5)	15 (33,3)	<0.001
wrist sign	28 (51,9)	16 (35,6)	0.070
thumb sign	35 (64,8)	18 (40,0)	0.006
scoliosis	42 (77,8)	36 (80,0)	0.791
moderate or severe scoliosis	10 (18,5)	5 (11,1)	0.255
pectus excavatum	4 (7,4)	11 (24,4)	0.024
pectus carinatum	20 (37,0)	17 (37,8)	0.900
reduced elbow extension	3 (5,6)	4 (8,9)	0.700
flat feet	29 (53,7)	19 (42,2)	0.151
hindfoot deformity	9 (16,7)	9 (20,0)	0.680
stretch marks	25 (46,3)	24 (53,3)	0.576
dolichocephaly	15 (27,8)	13 (28,9)	0.868
dental crowding	25 (46,3)	16 (35,6)	0.295
gothic palate	24 (44,4)	27 (60,0)	0.153
downslanting palpebral fissures	24 (44,4)	11 (24,4)	0.021
retrognathia	12 (22,2)	14 (31,1)	0.391
micrognathia	26 (48,1)	25 (55,6)	0.553
enophthalmia	25 (46,3)	35 (77,8)	0.002
malar hypoplasia	19 (35,2)	30 (66,7)	0.002
age at the time of first suspicion of MFS	20.3 ± 14.0	19.5 ± 13.2	0.780
birth weight	3092.1 ± 715.2	3795.0 ± 593.8	0.049
birth length	55.1 ± 4.8	56.6 ± 2.9	0.521
joint pain	39 (72,2)	15 (33,3)	<0.001
frequent headaches	37 (68,5)	15 (33,3)	0.001
dizziness	28 (51,9)	11 (24,4)	0.007
syncope	24 (44,4)	5 (11,1)	<0.001
chest pain	27 (50,0)	17 (37,8)	0.316
palpitations	23 (42,6)	9 (20,0)	0.021
coordination disorders	27 (50,0)	3 (6,7)	<0.001

hernias	6 (11,1)	15 (33,3)	0.006
idiopathic pulmonary oedema	3 (5,6)	2 (4,4)	1.000
multiple injuries	15 (27,8)	4 (8,9)	0.018
effort tolerance worse than that of peers	35 (64,8)	20 (44,4)	0.039
lens subluxation	16 (29,6)	12 (26,7)	0.946
myopia ≥ 3 D	23 (42,6)	14 (31,1)	0.565

Table S4. Comparative analysis of the most frequently reported symptoms, physical examination abnormalities and other more frequently noted abnormalities between women and men in the entire adult population.

Feature	Adults with MFS (n=63)		
	Women with MFS (n=34)	Men with MFS (n=29)	p
age	33.9 \pm 14.2	32.8 \pm 9.2	0.725
BMI	22.3 \pm 5.1	21.7 \pm 5.2	0.651
body weight	68.8 \pm 16.1	80.1 \pm 17.6	0.011
height	176.1 \pm 9.0	192.2 \pm 7.7	<0.001
ASHR >1.05	10 (29,4)	8 (27,6)	0.754
USLS <0.85	29 (85,3)	26 (89,7)	0.617
joint laxity	26 (76,5)	12 (41,4)	0.003
wrist sign	19 (55,9)	13 (44,8)	0.388
thumb sign	26 (76,5)	15 (51,7)	0.033
scoliosis	28 (82,4)	23 (79,3)	0.694
moderate or severe scoliosis	9 (26,5)	3 (10,3)	0.093
pectus excavatum	4 (11,8)	7 (24,1)	0.187
pectus carinatum	16 (47,1)	16 (55,2)	0.477
reduced elbow extension	3 (8,8)	4 (13,8)	0.692
flat feet	21 (61,8)	12 (41,4)	0.074
hindfoot deformity	8 (23,5)	9 (31,0)	0.424
stretch marks	22 (64,7)	17 (58,6)	0.640
dolichocephaly	10 (29,4)	9 (31,0)	0.517
dental crowding	18 (52,9)	12 (41,4)	0.444
gothic palate	20 (58,8)	21 (72,4)	0.204
downslanting palpebral fissures	19 (55,9)	9 (31,0)	0.034
retrognathia	9 (26,5)	8 (27,6)	0.960

micrognathia	16 (47,1)	15 (51,7)	0.670
enophthalmia	20 (58,8)	23 (79,3)	0.051
malar hypoplasia	12 (35,3)	21 (72,4)	0.002
age at the time of first suspicion of MFS	17.7 ± 14.7	18.0 ± 14.1	0.950
birth weight	3168.8 ± 735.3	3966.7 ± 450.9	0.118
birth length	53.5 ± 4.4	58.5 ± 3.5	0.178
joint pain	23 (67,6)	10 (34,5)	0.016
frequent headaches	22 (64,7)	9 (31,0)	0.014
dizziness	19 (55,9)	9 (31,0)	0.061
syncope	17 (50,0)	4 (12,8)	0.004
chest pain	17 (50,0)	12 (41,4)	0.683
palpitations	16 (47,1)	6 (20,7)	0.036
coordination disorders	17 (50,0)	3 (10,3)	0.001
hernias	6 (17,6)	11 (37,9)	0.054
idiopathic pulmonary oedema	2 (5,9)	2 (6,9)	1.000
multiple injuries	10 (29,4)	1 (3,4)	0.016
effort tolerance worse than that of peers	23 (67,6)	12 (41,4)	0.030
lens subluxation	15 (44,1)	12 (41,4)	0.875
myopia ≥ 3 D	17 (50,0)	12 (41,4)	0.973

Table S5. Comparative analysis of the most frequently reported symptoms, physical examination abnormalities and other more frequently noted abnormalities between women and men in the population of adults with Marfan syndrome.

Feature	Adults with marfanoid habitus (n=36)		
	Women (n=20)	Men (n=16)	p
age	31.2 ± 8.3	29.2 ± 10.0	0.525
BMI	21.9 ± 4.4	21.2 ± 3.5	0.646
body weight	64.3 ± 14.7	76.6 ± 12.1	0.014
height	171.3 ± 10.0	190.4 ± 6.8	<0.001
ASHR >1.05	2	3	0.642
USLS < 0.85	18	15	0.471
joint laxity	11	3	0.012
wrist sign	9	3	0.057
thumb sign	9	3	0.080

scoliosis	14	13	1.000
moderate or severe scoliosis	1	2	0.591
pectus excavatum	0	4	0.044
pectus carinatum	4	1	0.335
reduced elbow extension	0	0	-
flat feet	8	7	0.968
hindfoot deformity	1	0	1.000
stretch marks	3	7	0.134
dolichocephaly	5	4	0.688
dental crowding	7	4	0.458
gothic palate	4	6	0.457
downslanting palpebral fissures	5	2	0.405
retrognathia	3	6	0.250
micrognathia	10	10	0.738
enophthalmia	5	12	0.015
malar hypoplasia	7	9	0.492
age at the time of first suspicion of MFS	24.5 ± 12.1	22.4 ± 11.2	0.616
birth weight	2990.0 ± 742.4	3623.3. ± 767.9	0.271
birth length	58.3 ± 4.3	55.3 ± 2.1	0.333
joint pain	16	5	0.002
frequent headaches	15	6	0.002
dizziness	9	2	0.064
syncope	7	1	0.053
chest pain	10	5	0.260
palpitations	7	3	0.451
coordination disorders	10	0	0.001
hernias	0	4	0.033
idiopathic pulmonary oedema	1	0	1.000
multiple injuries	5	3	0.699
effort tolerance worse than that of peers	12	8	0.563
lens subluxation	1	0	1.000
myopia ≥ 3 D	6	2	0.408

Table S6. Comparative analysis of the most frequently reported symptoms, physical examination abnormalities and other more frequently noted abnormalities between women and men in the population of adults with marfanoid habitus.

Feature	Adult men (n=45)		
	MFS (n=29)	Marfanoid habitus (n=16)	p
age	32.8 ± 9.2	29.2 ± 10.0	0.228
BMI	21.7 ± 5.2	21.2 ± 3.5	0.750
body weight	80.1 ± 17.6	76.6 ± 12.1	0.494
height	192.2 ± 7.7	190.4 ± 6.8	0.422
deficiency in weight	6 (20,7)	3 (18,8)	1.000
remarkably high stature	18 (62,1)	8 (50,0)	0.739
ASHR >1.05	8 (27,6)	3 (18,8)	0.720
USLS < 0.85	26 (89,7)	15 (93,8)	1.000
joint laxity	12 (41,4)	3 (18,8)	0.087
wrist sign	13 (44,8)	3 (18,8)	0.054
thumb sign	15 (51,7)	3 (18,8)	0.018
scoliosis	23 (79,3)	13 (81,3)	1.000
moderate or severe scoliosis	3 (10,3)	2 (12,5)	1.000
pectus excavatum	7 (24,1)	4 (25,0)	1.000
pectus carinatum	16 (55,2)	1 (6,25)	0.001
reduced elbow extension	4 (13,8)	0	0.279
flat feet	12 (41,4)	7 (43,8)	0.965
hindfoot deformity	9 (31,0)	0	0.008
stretch marks	17 (58,6)	7 (43,8)	0.220
dolichocephaly	9 (31,0)	4 (25,0)	0.414
dental crowding	12 (41,4)	4 (25,0)	0.218
gothic palate	21 (72,4)	6 (37,5)	0.008
downslanting palpebral fissures	9 (31,0)	2 (12,5)	0.166
retrognathia	8 (27,6)	6 (37,5)	0.594
micrognation	15 (51,7)	10 (62,5)	0.655
enophthalmia	23 (79,3)	12 (75,0)	0.443
malar hypoplasia	21 (72,4)	8 (50,0)	0.137
age at the time of first suspicion of MFS	18.0 ± 14.1	22.4 ± 11.2	0.309
birth weight	3966.7 ± 450.9	3623.3 ± 767.9	0.541
birth length	58.5 ± 3.5	55.3 ± 2.1	0.283
joint pain	10 (34,5)	5 (31,3)	0.743
frequent headaches	9 (31,0)	6 (37,5)	0.730
dizziness	9 (31,0)	2 (12,5)	0.168
syncope	4 (13,8)	1 (6,25)	0.636
chest pain	12 (41,4)	5 (31,3)	0.422
palpitations	6 (20,7)	3 (18,8)	1.000

coordination disorders	3 (10,3)	0	0.287
hernias	11 (37,9)	4 (25,0)	0.362
idiopathic pulmonary oedema	2 (6,9)	0	0.530
multiple injuries	1 (3,4)	3 (18,8)	0.130
effort tolerance worse than that of peers	12 (41,4)	8 (50,0)	0.658
lens subluxation	12 (41,4)	0	0.002
myopia ≥ 3 D	12 (41,4)	2 (12,5)	0.024

Table S7. Comparative analysis of the most frequently reported symptoms, physical examination abnormalities and other more frequently noted abnormalities between patients with Marfan syndrome and marfanoid habitus in the group of adult men.

Feature	Adult women (n=54)		
	MFS (n=34)	Marfanoid habitus (n=20)	p
age	33.9 \pm 14.2	31.2 \pm 8.3	0.438
BMI	22.3 \pm 5.1	21.9 \pm 4.4	0.758
body weight	68.8 \pm 16.1	64.3 \pm 14.7	0.321
height	176.1 \pm 9.0	171.3 \pm 10.0	0.086
deficiency in weight	8 (23,5)	3 (15,0)	0.505
remarkably high stature	19 (55,9)	5 (25,0)	0.029
ASHR >1.05	10 (29,4)	2 (10,0)	0.171
USLS < 0.85	29 (85,3)	18 (90,0)	0.544
joint laxity	26 (76,5)	11 (55,0)	0.180
wrist sign	19 (55,9)	9 (45,0)	0.522
thumb sign	26 (76,5)	9 (45,0)	0.021
scoliosis	28 (82,4)	14 (70,0)	0.398
moderate or severe scoliosis	9 (26,5)	1 (5,0)	0.070
pectus excavatum	4 (11,8)	0	0.284
pectus carinatum	16 (47,1)	4 (20,0)	0.073
reduced elbow extension	3 (8,8)	0	0.544
flat feet	21 (61,8)	8 (40,0)	0.110
hindfoot deformity	8 (23,5)	1 (5,0)	0.130
stretch marks	22 (64,7)	3 (15,0)	<0.001
dolichocephaly	10 (29,4)	5 (25,0)	0.736
dental crowding	18 (52,9)	7 (35,0)	0.239
gothic palate	20 (58,8)	4 (20,0)	0.006

downslanting palpebral fissures	19 (55,9)	5 (25,0)	0.024
retrognathia	9 (26,5)	3 (15,0)	0.494
micrognathia	16 (47,1)	10 (50,0)	0.706
enophthalmia	20 (58,8)	5 (25,0)	0.027
malar hypoplasia	12 (35,3)	7 (35,0)	0.923
age at the time of first suspicion of MFS	17.7 ± 14.7	24.5 ± 12.1	0.075
birth weight	3168.8 ± 735.3	2990.0 ± 742.4	0.662
birth length	53.5 ± 4.4	58.3 ± 4.3	0.105
joint pain	23 (67,6)	16 (80,0)	0.328
frequent headaches	22 (64,7)	15 (75,0)	0.347
dizziness	19 (55,9)	9 (45,0)	0.405
syncope	17 (50,0)	7 (35,0)	0.307
chest pain	17 (50,0)	10 (50,0)	0.938
palpitations	16 (47,1)	7 (35,0)	0.361
coordination disorders	17 (50,0)	10 (50,0)	0.869
hernias	6 (17,6)	0	0.078
idiopathic pulmonary oedema	2 (5,9)	1 (5,0)	1.000
multiple injuries	10 (29,4)	5 (25,0)	0.797
effort tolerance worse than that of peers	23 (67,6)	12 (60,0)	0.409
lens subluxation	15 (44,1)	1 (5,0)	0.002
myopia ≥ 3 D	17 (50,0)	6 (30,0)	0.159

Table S8. Comparative analysis of the most frequently reported symptoms, physical examination abnormalities and other more frequently noted abnormalities between patients with Marfan syndrome and marfanoid habitus in the group of adult women.