

Table S1. Crude prevalence of elevated ALAT stratified by the classification of BMI *z*-score among children and adolescents of Shenzhen, separately based on the diagnostic criteria I and II.

Classification of BMI- <i>z</i>	Criterion I (> 30 U/L for boys and > 19 U/L for girls)			Criterion II (> 40 U/L for boys and girls)		
	Overall	Boys	Girls	Overall	Boys	Girls
Overall	7.10 (6.51–7.69)	6.85 (6.07–7.63)	7.40 (6.50–8.30)	2.71 (2.34–3.08)	3.94 (3.33–4.54)	1.20 (0.82–1.57)
Underweight	2.48 (0.52–4.44)	2.04 (0–4.33)	3.16 (0–6.67)	0.83 (0–1.97)	0.68 (0–2.01)	1.05 (0–3.10)
Normal weight	3.79 (3.28–4.29)	2.37 (1.81–2.93)	5.28 (4.43–6.13)	0.89 (0.64–1.14)	1.03 (0.66–1.4)	0.75 (0.42–1.08)
Overweight	12.58 (10.61–14.55)	10.63 (8.32–12.93)	15.92 (12.34–19.50)	4.96 (3.67–6.25)	6.26 (4.45–8.07)	2.74 (1.14–4.33)
Obesity	36.91 (32.44–41.39)	36.97 (31.97–41.98)	36.67 (26.71–46.62)	20.58 (16.83–24.33)	23.81 (19.39–28.23)	7.78 (2.24–13.31)

The prevalence of elevated ALAT is expressed as % (95% confidence interval).

Table S2. The AUC (95% CI) of the ROC curve stratified by gender in univariate analyses, separately based on the diagnostic criteria I and II for elevated ALAT.

Variable	Criterion I (>30U/L for boys and >19U/L for girls)				Criterion II (>40U/L for boys and girls)			
	AUC	95% CI	SE	<i>P</i> -value*	AUC	95% CI	SE	<i>P</i> -value*
Boys								
Age	0.631	0.599–0.663	0.016	<0.001	0.634	0.594–0.675	0.021	<0.001
Height	0.655	0.624–0.685	0.016	<0.001	0.672	0.633–0.711	0.020	<0.001
Weight	0.861	0.836–0.885	0.013	<0.001	0.878	0.849–0.907	0.015	<0.001
BMI	0.863	0.838–0.889	0.013	<0.001	0.884	0.856–0.913	0.015	<0.001
Height-z	0.497	0.463–0.531	0.017	0.863	0.504	0.461–0.548	0.022	0.852
BMI-z	0.825	0.796–0.854	0.015	<0.001	0.850	0.816–0.883	0.017	<0.001
Girls								
Age	0.582	0.546–0.618	0.019	<0.001	0.527	0.454–0.601	0.037	0.557
Height	0.595	0.554–0.636	0.021	<0.001	0.551	0.455–0.647	0.049	0.271
Weight	0.716	0.678–0.754	0.019	<0.001	0.685	0.586–0.785	0.051	<0.001
BMI	0.705	0.667–0.743	0.019	<0.001	0.686	0.588–0.784	0.050	<0.001
Height-z	0.554	0.515–0.592	0.020	0.006	0.509	0.415–0.604	0.048	0.843
BMI-z	0.667	0.627–0.707	0.020	<0.001	0.664	0.562–0.765	0.052	<0.001

AUC, area under curve; ROC, receiver operating characteristic; ALAT, alanine aminotransferase; CI, confidence interval; SE, standard error.

* Null hypothesis: true area under curve = 0.5.

Table S3. Spearman's rank correlation coefficients between individual measurements and ALAT.

Variable	Age	Gender	Height	Weight	BMI	Height-z	BMI-z	ALAT
Gender	0.008	1						
Height	0.398**	0.332**	1					
Weight	0.345**	0.217**	0.673**	1				
BMI	0.182**	0.045**	0.189**	0.829**	1			
Height-z	-0.469**	0.052	0.475**	0.249**	-0.012	1		
BMI-z	-0.230**	0.101	0.028*	0.657**	0.891**	0.198**	1	
ALAT	0.091**	0.220**	0.229**	0.359**	0.309**	0.065**	0.277**	1

* $0.001 \leq P\text{-value} < 0.05$.

** $P\text{-value} < 0.001$.