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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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**Reference of screening for elevated blood pressure among
children and adolescents aged 7~18 years
(English Translation)**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard was drafted. Peking University, Harbin Medical University, Peking Union Medical College, Tianjin Medical University, Ningxia Medical University.

1 Scope

This standard specifies the blood pressure evaluation methods and standards for children and adolescents aged 7 to 18 years, blood pressure measurement requirements and high blood pressure screening report requirements.

This standard is applicable to the screening of high blood pressure in children and adolescents aged 7 to 18 years old in China.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only the dated version applies to this document.

For undated references, the latest edition (including all amendments) applies to this document.

GB/T 26343 Student Health Check Technical Specifications

3 Terms and definitions

The following terms and definitions apply to this document.

Blood pressure

The blood flows in the blood vessels, and the force of the flowing blood on the blood vessel wall per unit area, that is, the lateral pressure of the flowing blood. Typically in millimeters of mercury (1 mmHg = 0.133 kPa) is the unit of arterial pressure.

Note: In actual clinical and research, arterial pressure is often referred to as "blood pressure". This standard blood pressure also refers to arterial pressure.

Normal high blood pressure There are two ways to judge, one is. Systolic Blood Pressure (SBP) and/or Diastolic Blood (Distolic Blood) Pressure, DBP) $\geq$ P90 blood pressure in the same sex, same age, and the same height percentile, and $<$ P95 blood pressure. The other is. systolic blood pressure $\geq$ 120 mmHg (but $<$ the same sex, the same age, the same height, the percentage of the population P95) and/or diastolic blood pressure $\geq$ 80mmHg (but $<$ same sex, the same year Age, the same height percentile population P95).

High blood pressure

Systolic blood pressure and/or diastolic blood pressure $\geq$ P95 blood pressure in the same sex, the same age, and the same height percentile.

Cut-off point

It is used to determine whether a body is a "threshold" for high blood pressure or normal high blood pressure. $\geq$ threshold, judged as "yes"; $<$ threshold value Set to "No".

4.1.1 Calculation of age

The age is 1 year old and the age of the chronological age is used according to the principle of rounding.

Real age = survey year and month - birth date.

4.1.2 Selection of height group

According to the height values of the male and female children and adolescents aged 7 to 17 years old listed in Table A.1 and Table A.2 of Appendix A, judge the height of the body.

The age should be the percentile.

4.2 Screening for normal high blood pressure and high blood pressure threshold points by gender, age and height Men, girls, and adolescents aged 7 to 17 years old are screened for age, height, normal high blood pressure, and high blood pressure. See Table B.1 in Appendix B.

Table B.2.

18-year-old male and female adolescents with normal high blood pressure and high blood pressure threshold points refer to adult standards, without reference to the height threshold.

4.3.1 Normal blood pressure

From Table B.1, Table B.2, 7- to 17-year-old male, female, and female adolescents with systolic blood pressure and/or diastolic blood pressure $<$ same sex, same age, same body High-percentage blood pressure P90 is normal blood pressure.

18-year-old male and female adolescents refer to adult standards, with normal systolic blood pressure < 120 mmHg and diastolic blood pressure < 80 mmHg.

4.3.2 Normal high blood pressure

From Table B.1, Table B.2, 7- to 17-year-old male, female, and female adolescents with systolic blood pressure and/or diastolic blood pressure $\geq$ same sex, same age, and same body High percent blood pressure P90 and $< P95$ are normal high blood pressure; systolic blood pressure ≥ 120 mmHg and/or diastolic blood pressure ≥ 80 mmHg, but Sex, the same age, the same percentage of blood pressure P95 are also normal high blood pressure.

18-year-old male and female adolescents refer to adult standards, systolic blood pressure ≥ 120 mmHg and < 139 mmHg and/or diastolic blood pressure ≥ 80 mmHg and < 89 mmHg is normal high blood pressure.

4.3.3 High blood pressure

From Table B.1, Table B.2, 7- to 17-year-old male, female, and female adolescents with systolic blood pressure and/or diastolic blood pressure $\geq$ same sex, same age, and same body High-percentage blood pressure P95 is high blood pressure.

18-year-old male and female adolescents refer to adult standards, systolic blood pressure ≥ 140 mmHg and/or diastolic blood pressure ≥ 90 mmHg are high blood pressure.

4.3.4 Hypertension

If the blood pressure is equal to or greater than the high blood pressure threshold (P95), it needs to be measured 3 times or more on the same day, and each test the blood pressure is $\geq$ the high blood pressure limit point (P95), the measurement interval is not less than 1 week to 2 weeks, and the continuous increase is determined as hypertension.

5.1 Methods for measuring equipment and blood pressure

Blood pressure measuring equipment and measuring methods are carried out in accordance with the requirements of GB/T 26343. If you need to use an electronic blood pressure monitor, it is recommended to use the British high Blood pressure society, European Hypertension Society, American Medical Device Testing Association and other organizations certified electronic blood pressure monitors, need to be with mercury blood before measurement the pressure gauges are compared, and the difference between the measurements at the same time is not more than 10 mmHg, and the comparison can be used.

5.2 Precautions for blood pressure measurement

5.2.1

Within 2 hours before the test, the subject should not perform vigorous physical activity.

5.2.2

Before the test, the subject sat for 10 minutes to 15 minutes to stabilize the mood and accept the test.

5.2.3

Before the test, check whether the sphygmomanometer mercury column is in the "0" position. If it is not in the "0" position, it should be corrected. Observe the mercury column for bubbles.

If there are bubbles, it should be excluded.

5.2.4

When retesting is required, wait for the sphygmomanometer mercury column to drop to "0" position before measuring. If the blood pressure is retested, it should rest again.

After 10min~15min, the measurement can be carried out, and the measurement result is taken as the lowest value.

5.2.5

Each measurement should be performed 3 times in a row, the closest 2 readings, and the average value is taken as the blood pressure value of the subject.

5.2.6

The electronic sphygmomanometer can only be used for initial screening of high blood pressure in children and adolescents during use.