



# کراچی یونیورسٹی

## University of Karachi

### THE NGDS PILOT PROJECT



Participating School: Beacon Light Academy, 'O' Levels, Karachi

SF GROWTH-AND-IMAGING LABORATORY

Prof. Dr. Syed Arif Kamal (May 23, 2012)

## Formulae for Assigning Cumulative-Scoliosis-Risk Weightage (CSRW)<sup>§</sup>

Scoliosis-Risk Weightage	A	B	C
01. Family history	2.0	2.0	2.0
02. Age [3, 6.5] <sup>¶</sup> years	0.5	0.5	0.5
03. Age [6.5, 7.5] <sup>¶</sup> years	1.0	1.0	1.0
04. Age [7.5, 8.5] <sup>¶</sup> years	1.5	1.5	1.5
05. Age [8.5, 11] <sup>¶</sup> years	2.0	2.0	2.0
06. Tall (above 50 <sup>P</sup> ) <sup>#</sup>	1.0	1.5	2.0
07. Tall (above 75 <sup>P</sup> ) <sup>#</sup>	1.5	2.0	2.5
08. Tall (above 97 <sup>P</sup> ) <sup>#</sup>	2.0	2.5	3.0
09. Wasted (more than 10%) <sup>#</sup>	1.0	1.5	2.0
10. Wasted (more than 20%) <sup>#</sup>	1.5	2.0	2.5
11. Wasted (more than 30%) <sup>#</sup>	2.0	2.5	3.0
12. FBT <sub>F</sub> (lumbar asymmetry)	1.0/1.5*	1.5/2.0*	2.0/2.5*
13. FBT <sub>B</sub> (thoracic asymmetry)	1.0/1.5*	1.5/2.0*	2.0/2.5*
14. Plumb-line non-alignment	1.0	1.5	2.0
15. Shoulder drooping	0.5	1.0	1.5
16. Uneven scapulae	0.5	1.0	1.5
17. Midline of back C shaped	0.5/1.0 <sup>¥</sup>	1.0/1.5 <sup>¥</sup>	1.5/2.0 <sup>¥</sup>
18. Midline of back S shaped	1.0/1.5 <sup>¥</sup>	1.5/2.0 <sup>¥</sup>	2.0/2.5 <sup>¥</sup>
19. Unequal body triangles	0.5	1.0	1.5
20. Uneven spinal dimples	0.5	1.0	1.5
21. Positive moiré (back)	1.0	1.5	2.0
22. Positive moiré (front)	0.5	1.0	1.5

A: 1<sup>st</sup> Checkup or 2<sup>nd</sup> Checkup or 3<sup>rd</sup> Checkup

B: (1<sup>st</sup> + 2<sup>nd</sup>) checkup or (2<sup>nd</sup> + 3<sup>rd</sup>) checkup or (1<sup>st</sup> + 3<sup>rd</sup>) checkup

C: (1<sup>st</sup> + 2<sup>nd</sup> + 3<sup>rd</sup>) checkup

### Related References of Informative Articles

*Growth-and-obesity monitoring of primary-school children*  
[http://www.ngds-ku.org/BLA/Growth\\_Monitoring\\_BLA.pdf](http://www.ngds-ku.org/BLA/Growth_Monitoring_BLA.pdf)

*How to guard against curvatures of spinal column in children?*  
[http://www.ngds-ku.org/ngds\\_folder/art1.htm](http://www.ngds-ku.org/ngds_folder/art1.htm) (HTML version)  
<http://www.ngds-ku.org/Articles/A14.pdf> (PDF version)

*Moiré fringe topography to detect scoliosis in children*  
[http://www.ngds-ku.org/ngds\\_folder/art2.htm](http://www.ngds-ku.org/ngds_folder/art2.htm) (HTML version)  
<http://www.ngds-ku.org/Articles/A16.pdf> (PDF version)

*What can you learn from the way your child walks?*  
[http://www.ngds-ku.org/ngds\\_folder/art3.htm](http://www.ngds-ku.org/ngds_folder/art3.htm) (HTML version)  
<http://www.ngds-ku.org/Articles/A17.pdf> (PDF version)

### Related Documents

**Cumulative-Scoliosis-Risk Weightage (CSRW) — Designing Preventive Strategies**

[http://www.ngds-ku.org/BLA/Scoliosis\\_Risk.pdf](http://www.ngds-ku.org/BLA/Scoliosis_Risk.pdf)

**Effective Decision making for Presence of Scoliosis**

<http://www.ngds-ku.org/Papers/J36.pdf>

Web address of this document: [http://www.ngds-ku.org/BLA/Scoliosis\\_Risk.pdf](http://www.ngds-ku.org/BLA/Scoliosis_Risk.pdf)

<sup>§</sup>The student should be called for moiré examination and subject to differential-spinal-function testing in SF Growth-and-Imaging Laboratory at University of Karachi, if the *Cumulative-Scoliosis-Risk Weightage (CSRW)* is equal to or more than:

- 5.5 After the first checkup
- 6.5 After the second checkup
- 7.5 After the third checkup

<sup>¶</sup>[x, y] means x (3 years in the first entry) is included, but y (6.5 years) is not. A 6.5-year old student is rated according to criterion 03.

<sup>#</sup> The superscript P denotes percentile

\*The second value is applicable, if the front and the back asymmetries are on the opposite side

<sup>¥</sup>The second value is applicable, if the deformity is not corrected upon asking the child to assume mild-stretching posture