主题：

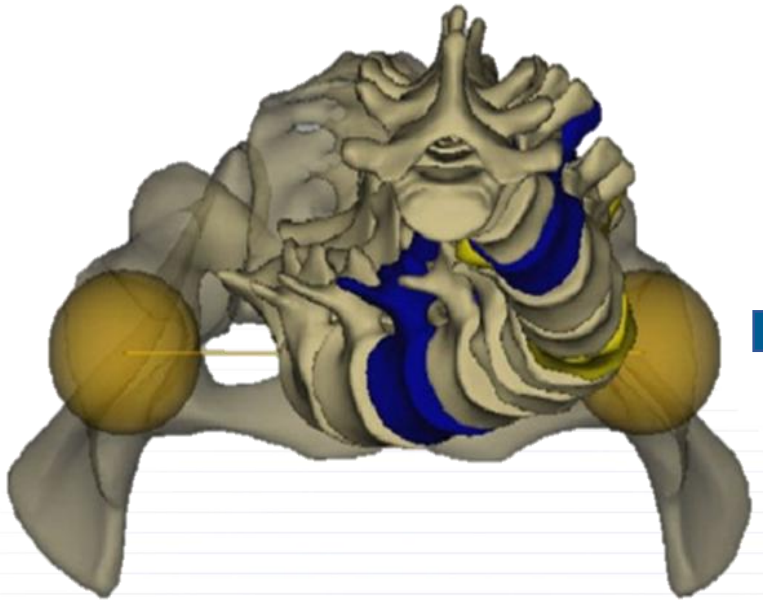
特发性脊柱侧弯
临床和放射学检查

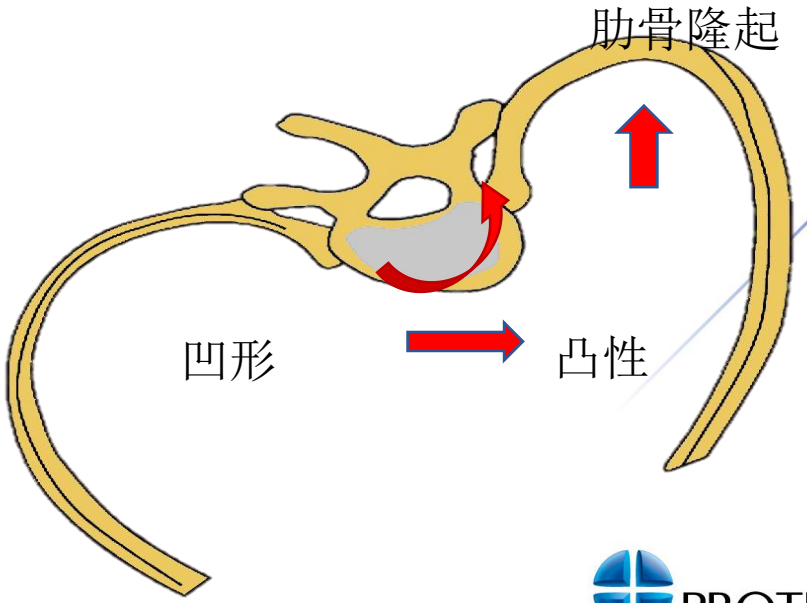
PROTEOR

Human First

- 椎体旋转导致
- 在矢状面上，脊柱生理弯曲变形（变平或反屈）
- **在额状面上，脊柱弯曲变形**

- 脊柱周围的肌肉与韧带力量不平衡
（无论患者在静态或动态的情况下）
- 椎体和肋骨变形
- 患者身体不对称



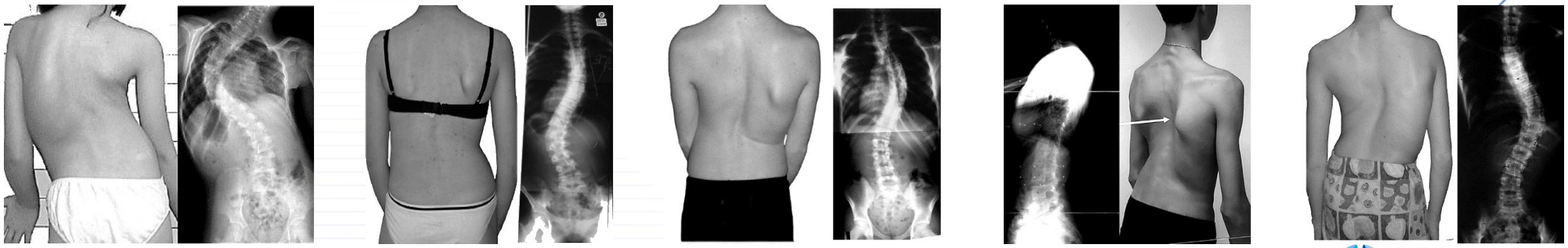


PROTEOR
Human First

临床分析，可以直接观察到患者身体的畸形和不对称

- 这些现象是X光的一种三维体现
- 无论患者怎样改变身体的姿势，这些现象依然存在 ———结构性脊柱侧弯

这是一个恶性循环的过程，无法自行恢复

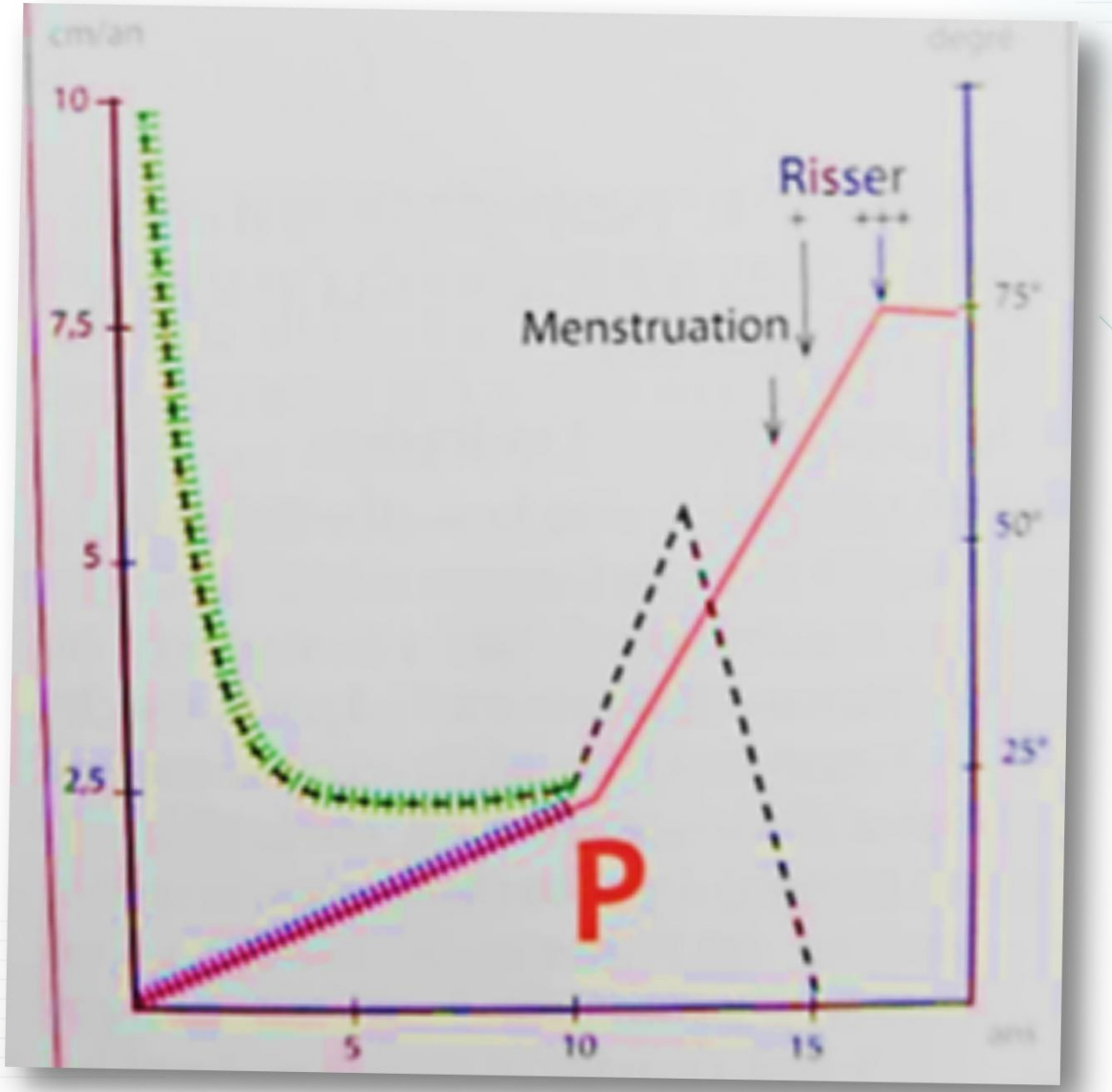


PROTEOR

Human First

生长单位：厘米/年

Cobb角恶化/青春期



PROTEOR
Human First

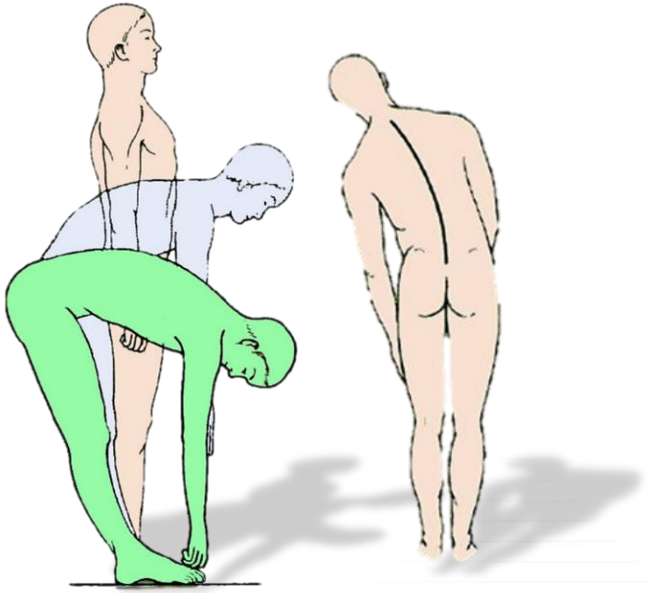
临床检查

PROTEOR

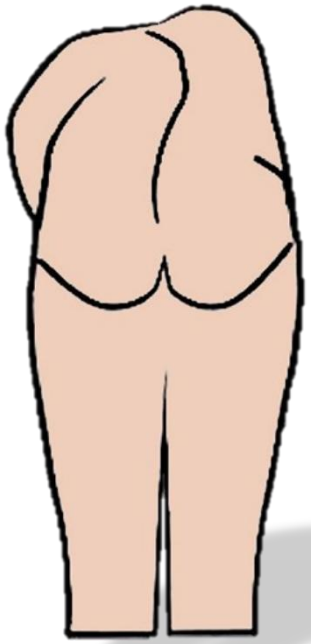
Human First

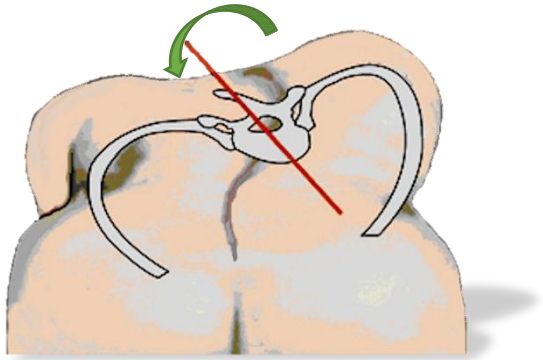
临床检查

为了测量和跟踪患者脊柱侧弯的变化



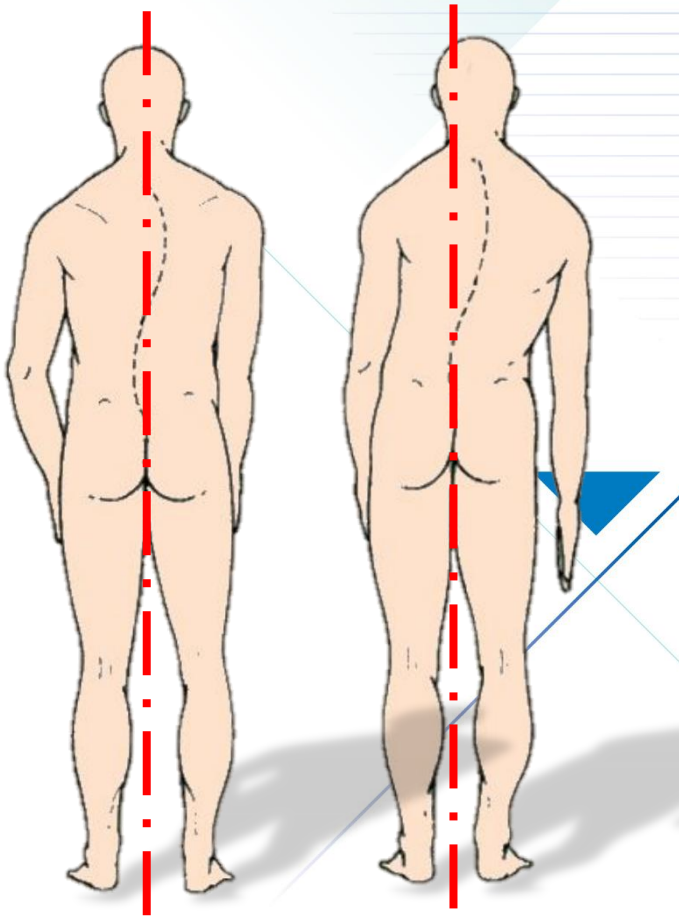
在额状面和矢状面评估患者骨骼的柔韧性





肋骨隆起由椎体在垂直轴旋转引起

*Adams*测试
(患者往前弯腰双臂自然下垂)



额状面的不平衡

PROTEOR
Human First

临床检查

测量和跟踪脊柱侧弯的进展

骨盆不平衡

可能多种原因导致

PROTEOR

Human First

临床检查

测量和跟踪脊柱侧弯的进展

整体平衡的分析

在矢状面上:

前倾

后仰

在额状面上:

枕-骶轴向

在横截面上:

肩胛带和骨盆带的旋

PROTEOR

Human First

临床检查

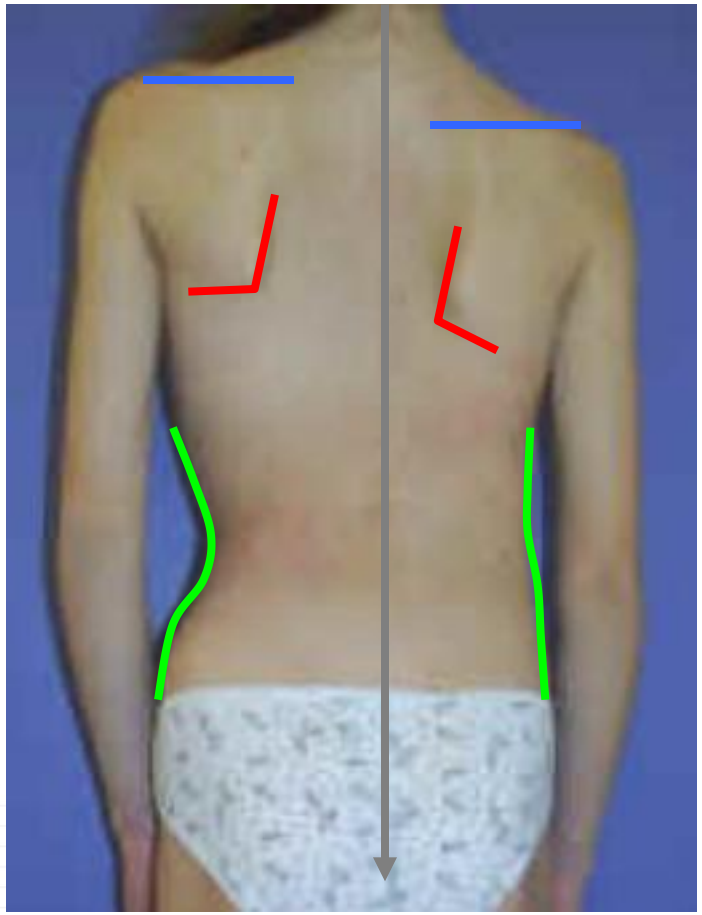
测量和跟踪患者脊柱侧弯的变化

腰部曲线的不对称

肩胛骨高低不平

高低肩

轴向的偏离（用垂线

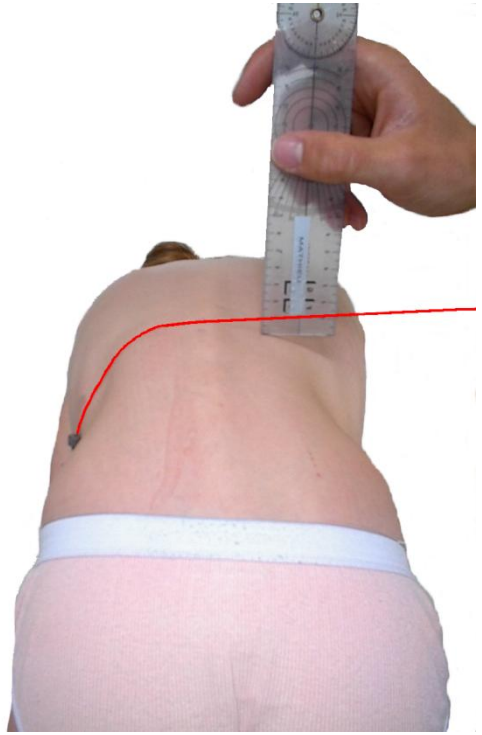


PROTEOR
Human First

临床分析（站立）

为了测量和跟踪患者脊柱侧弯的变化

肋骨隆起的严重性由椎体的旋转和转移导致



吉布斯和脊柱旁突出的测量

PROTEOR

Human First

临床分析（站立）

测量和跟踪患者脊柱侧弯的变化

在矢状面上， 生理曲线变平是脊柱侧弯相当严重的现象。

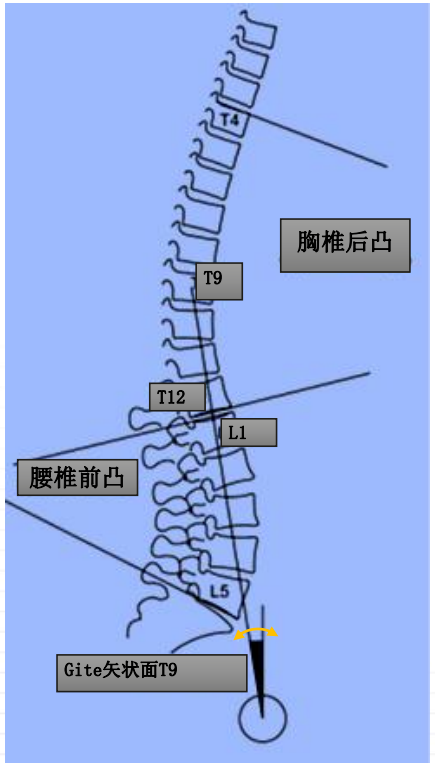
在矢状面上，生理曲线的反向弯曲（胸椎前凸、腰椎后凸）是脊柱侧弯最严重程度（只能手术）。

PROTEOR
Human First

站立式临床检查

测量和跟踪脊柱侧弯的进展

测量胸椎后凸、腰椎前凸角度的范围



PROTEOR
Human First

临床分析（俯卧）

评估脊柱侧弯可矫正度

骨盆和下肢僵硬的测量

PROTEOR

Human First

放射学检查

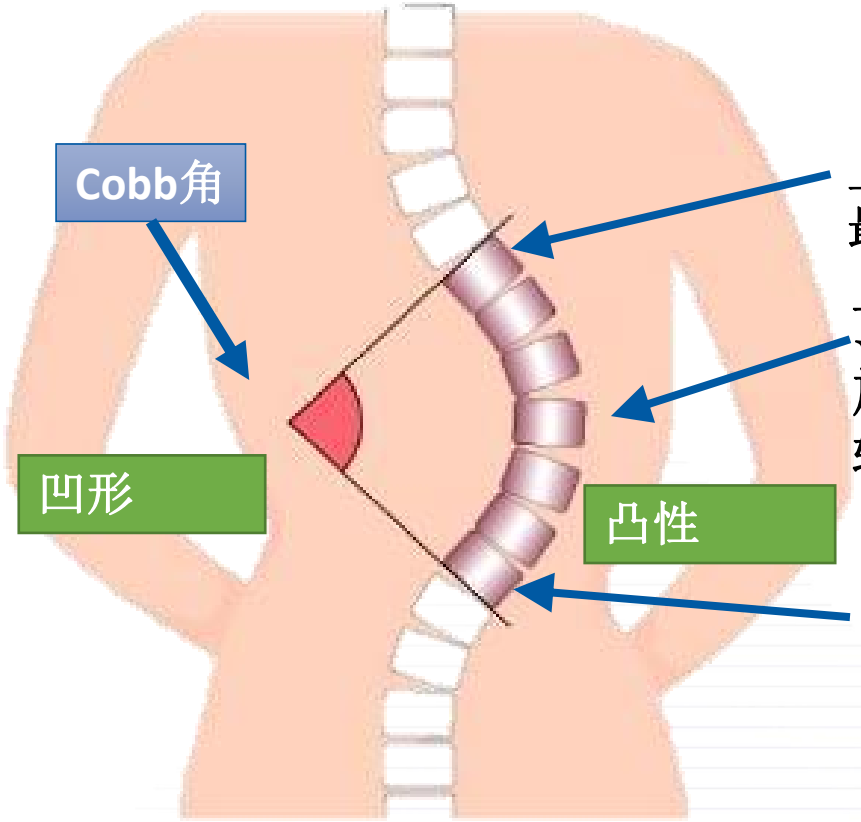
PROTEOR

Human First

放射学检查

测量和跟踪脊柱侧弯的进展

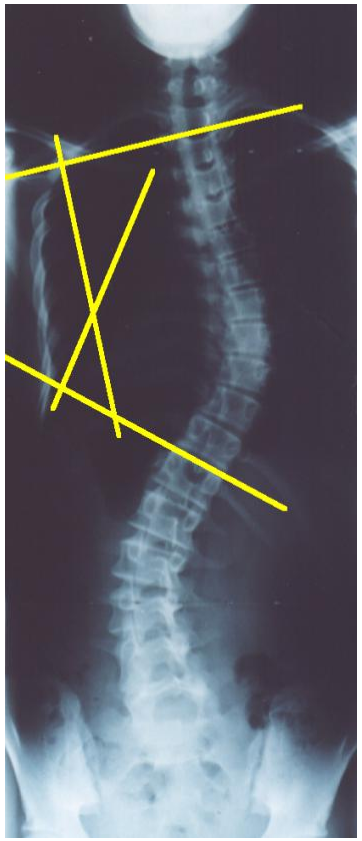
曲率的角度

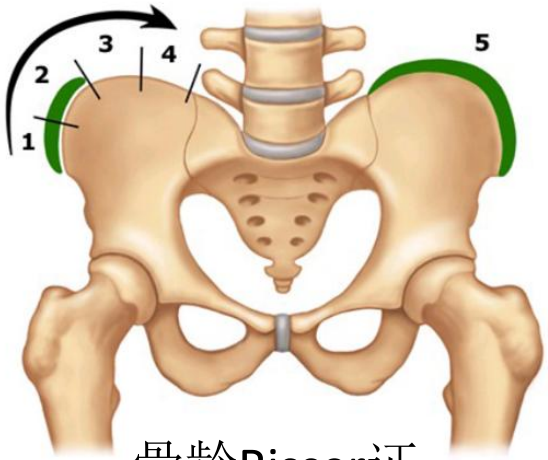


上端椎：
最倾斜的

顶椎：
旋转最大，距离中轴最远

下端椎：
最倾斜的



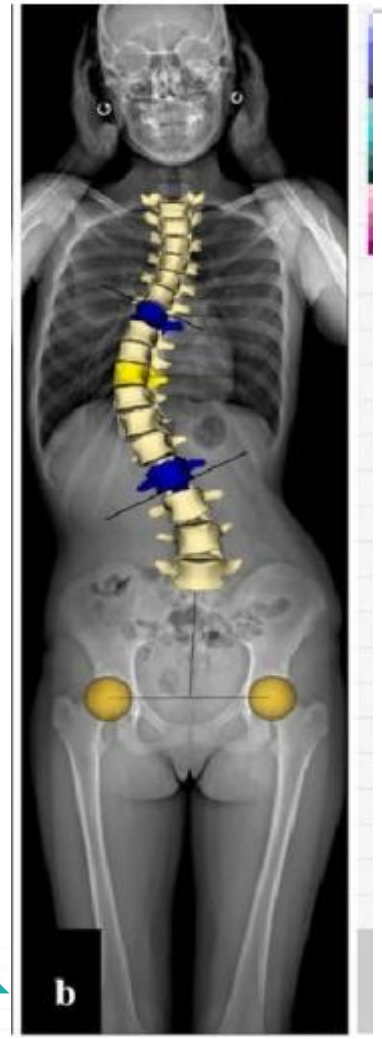


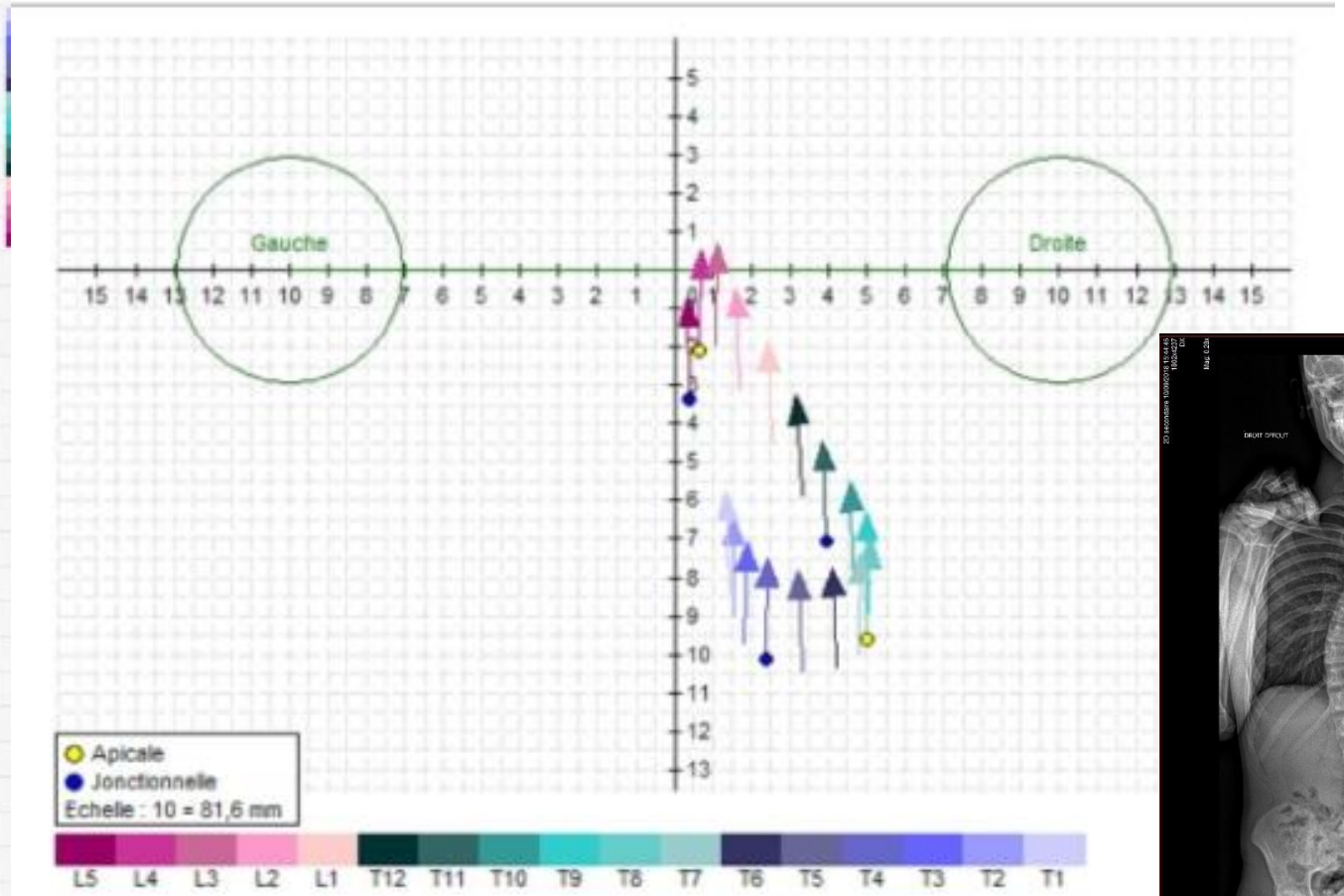
骨龄Risser证

PROTEOR
Human First

放射学检查

测量和跟踪脊柱侧凸的进展





Représentation en vue de dessus des vecteurs vertébraux (Illés et al., 2010

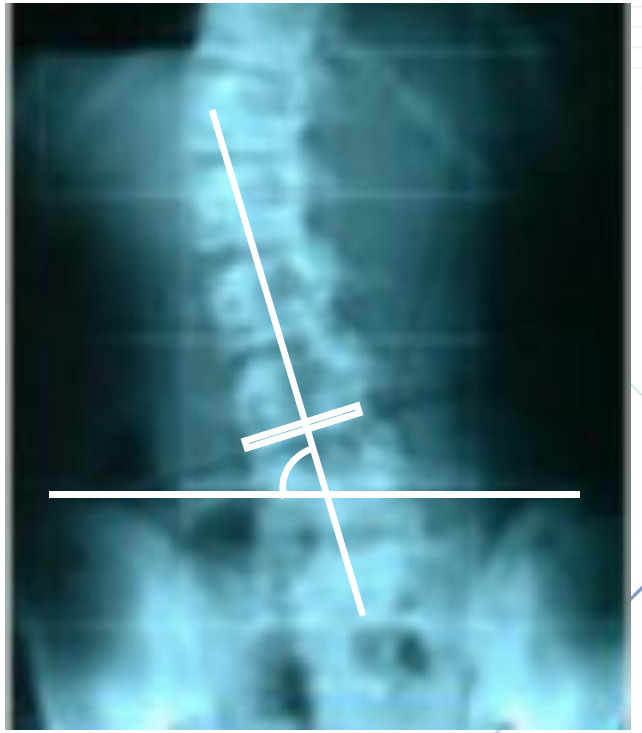
PROTEOR
Human First

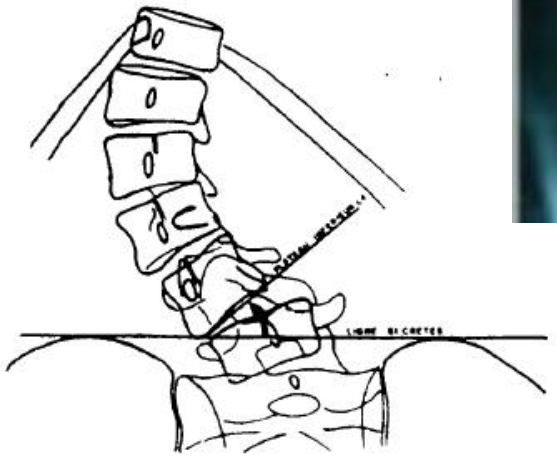
放射学检查

测量和跟踪脊柱侧弯的进展

髂腰角：下腰椎形成的角度，通常由垂直于L4上缘切线的直线和骨盆前轴即连接两个髂嵴上边缘的直线表示。（通常为90°）。

髂腰角的闭合对应于骶骨上脊柱的倾斜起始。

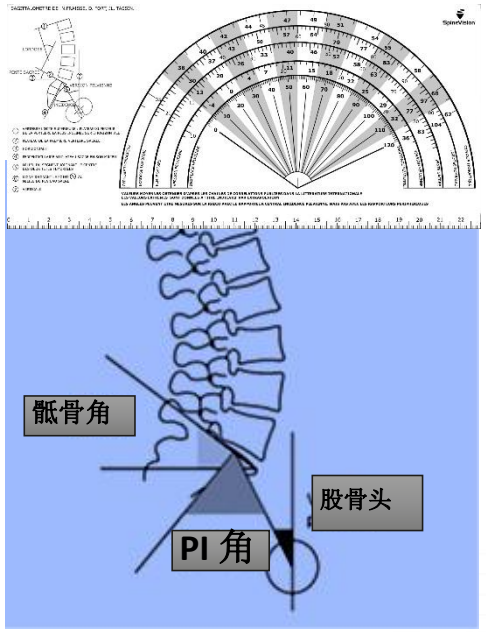


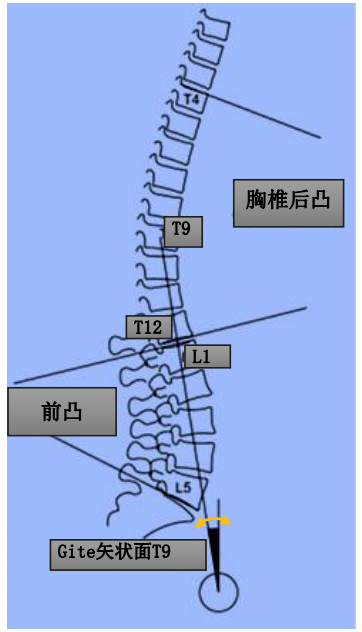


PROTEOR
Human First

放射学检查

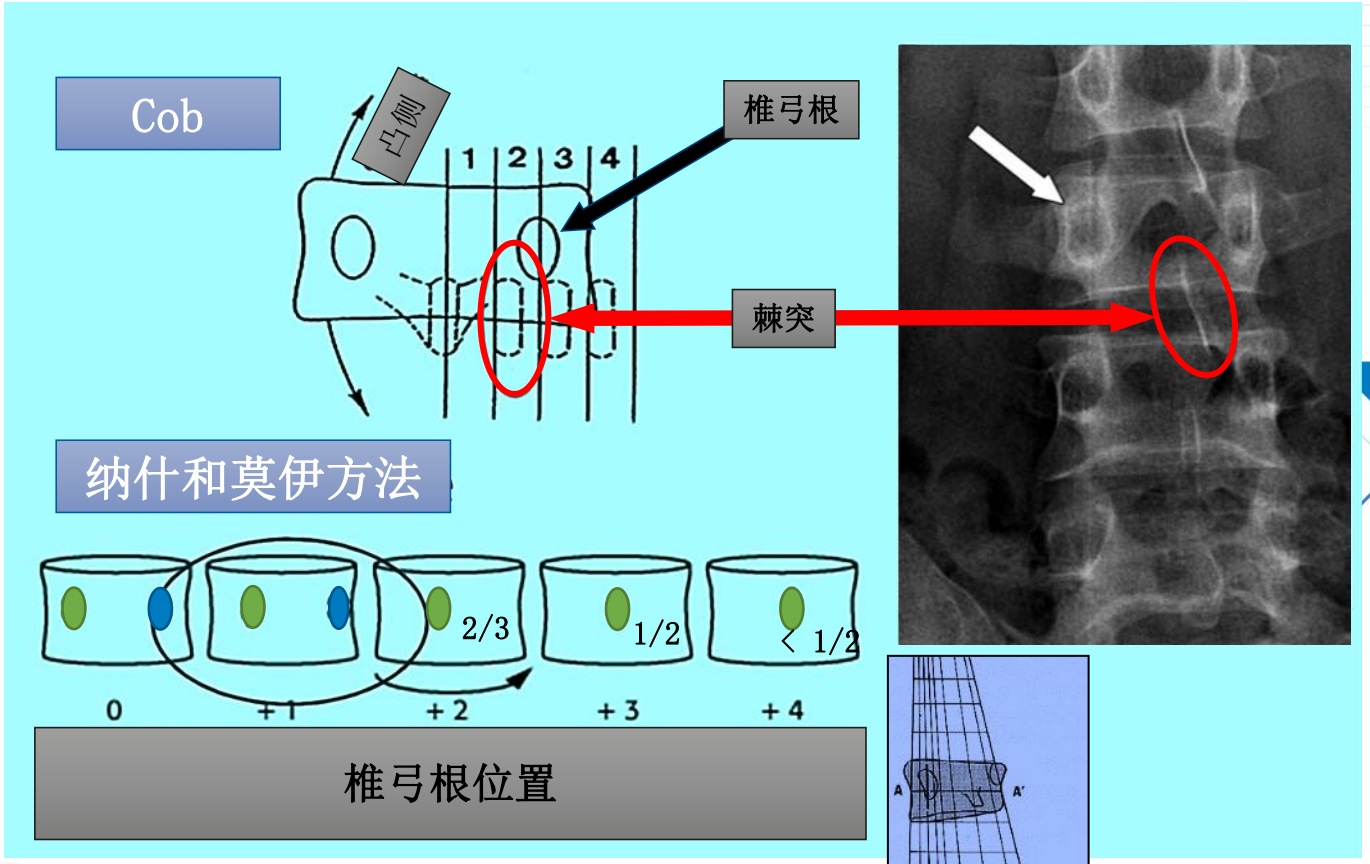
测量和跟踪脊柱侧弯的进展

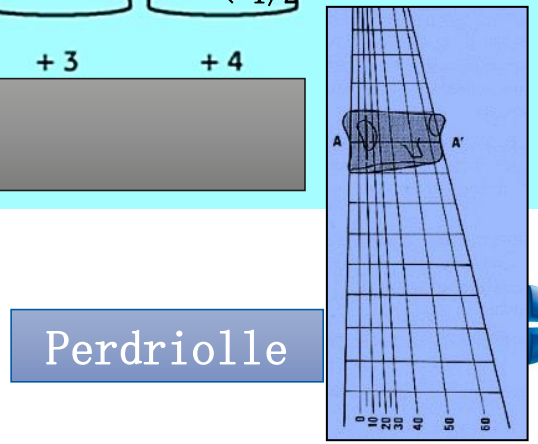




骨盆参数和生理矢状面曲率

椎体的旋转



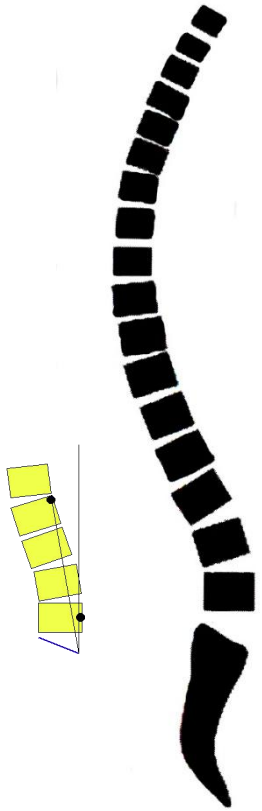


Perdriolle

PROTEOR

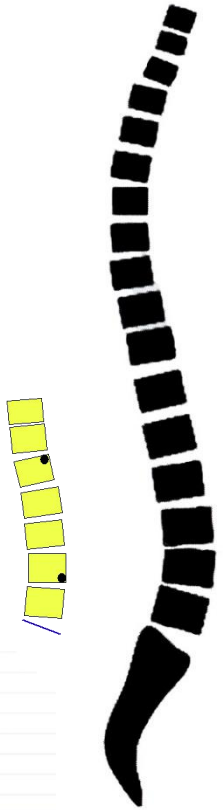
Human First

形态型（Roussouly）



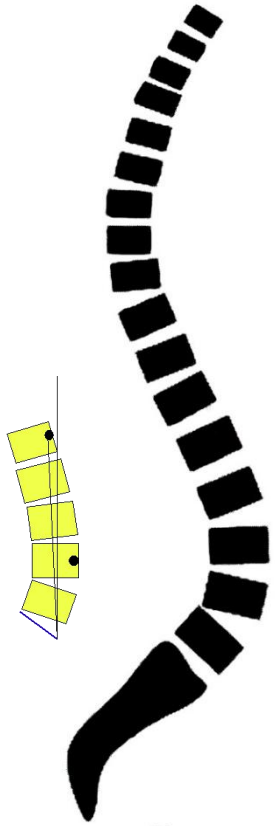
类型1

不和谐的



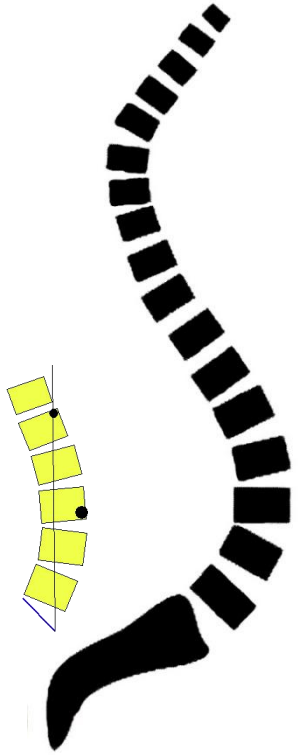
类型2

曲率减小



类型3

生理型



类型4

曲率增大

PROTEOR

Human First

脊柱侧弯检查报告/随访

PROTEOR

Human First

Fiche synoptique

Nom:

Prénom:

Date:

Vue postérieure

Mesures

Gite sagittale = 3.0 deg.
DAO = 1.8 deg.
% cyphose/lordose = 64.6/35.4 %
Angle cyph./lord. = 26.6/26.6 deg.

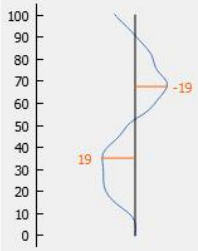
Fleche C7 = 22 mm.
Fleche Cyphose = 0 mm.
Fleche Lordose = 17 mm.
Fleche Bassin = 1 mm.

Déviation latérale gauche = -19 mm.
Déviation latérale droite = 19 mm.

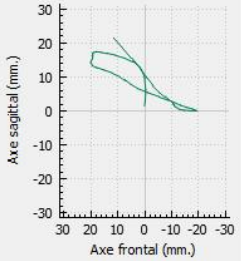
Hauteur SH (B) = 168.19 mm.
Hauteur SH (A) = 320.362 mm.

Vue de droite

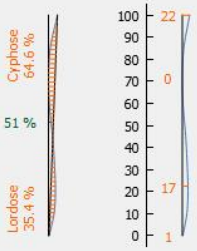
Bilan frontal



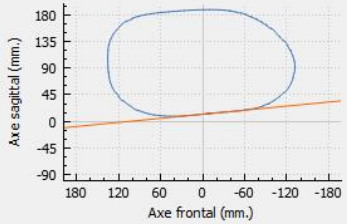
Signature



Bilan sagittal

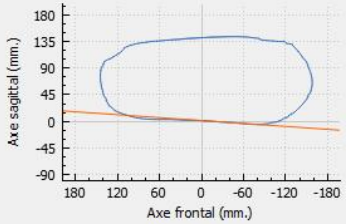


Section horizontale A (Gauche)



Angle de rotation = -6.5 deg.

Section horizontale B (Droite)



Angle de rotation = 4.7 deg.

PROTEOR

Human First

脊柱侧弯分类

PROTEOR

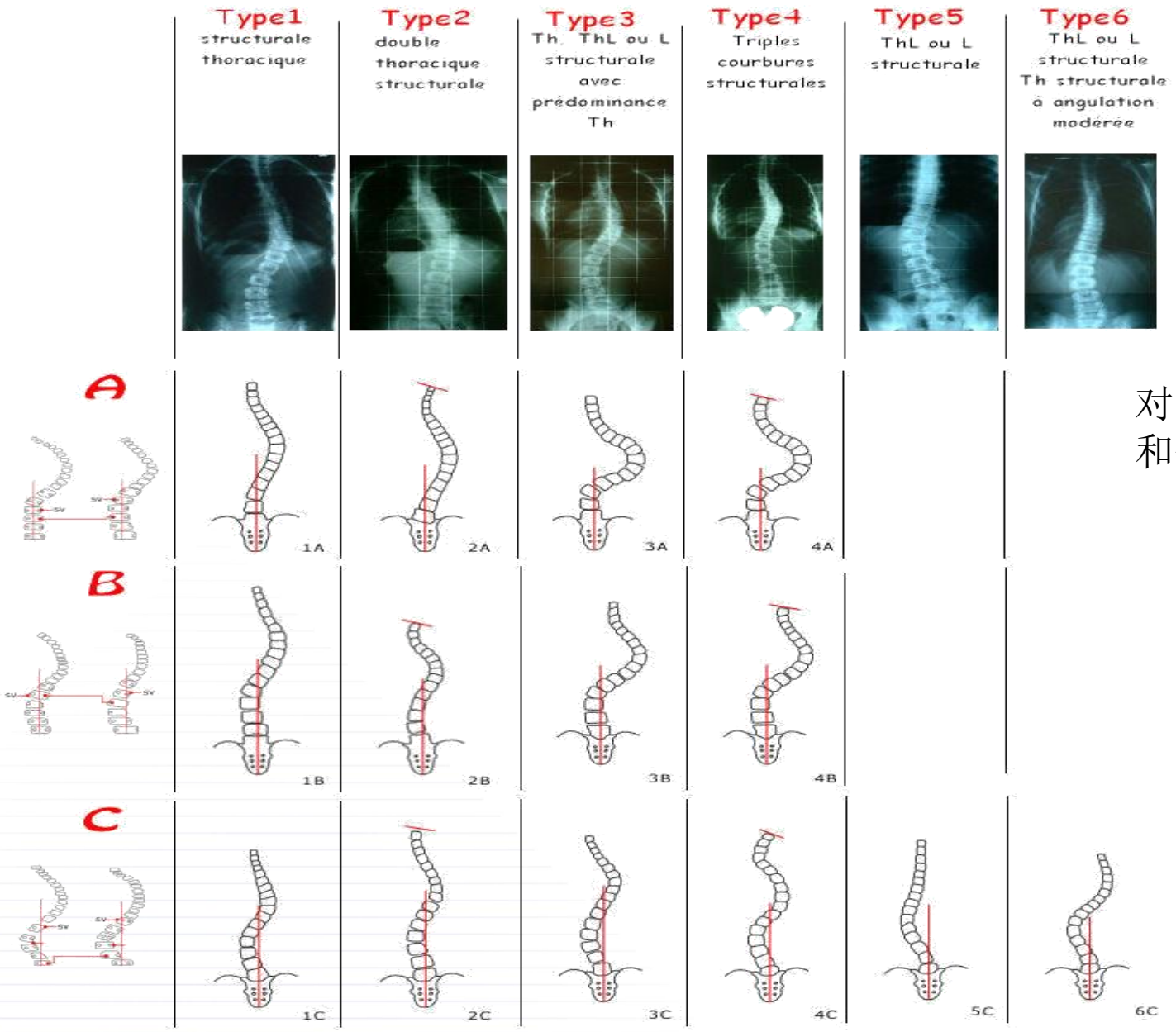
Human First

脊柱侧弯分类

Lombaire	Thoracolombaire	Thoracique	Double majeure
Elle réagit très bien au traitement orthopédique. Elle est évolutive à l'âge adulte.	Elle est souvent déséquilibrée. La stabilisation par corset est délicate	Elle est très évolutive à l'adolescence.	C'est la scoliose la plus stable à l'âge adulte. Elle réagit très bien au traitement orthopédique.

PROTEOR
Human First

伦克分类法



对外科治疗的兴趣
和脊柱矫形器类型的选择

PROTEOR
Human First