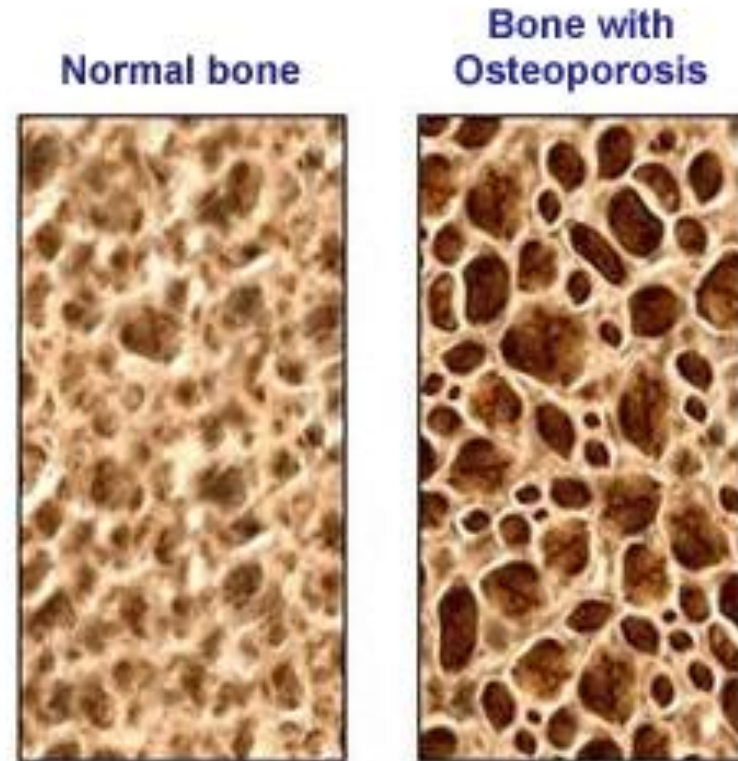


Osteoporosis in RS



What is Osteoporosis?

- Osteoporosis is a condition characterized by a decrease in the density of bone, decreasing its strength and resulting in fragile bones.



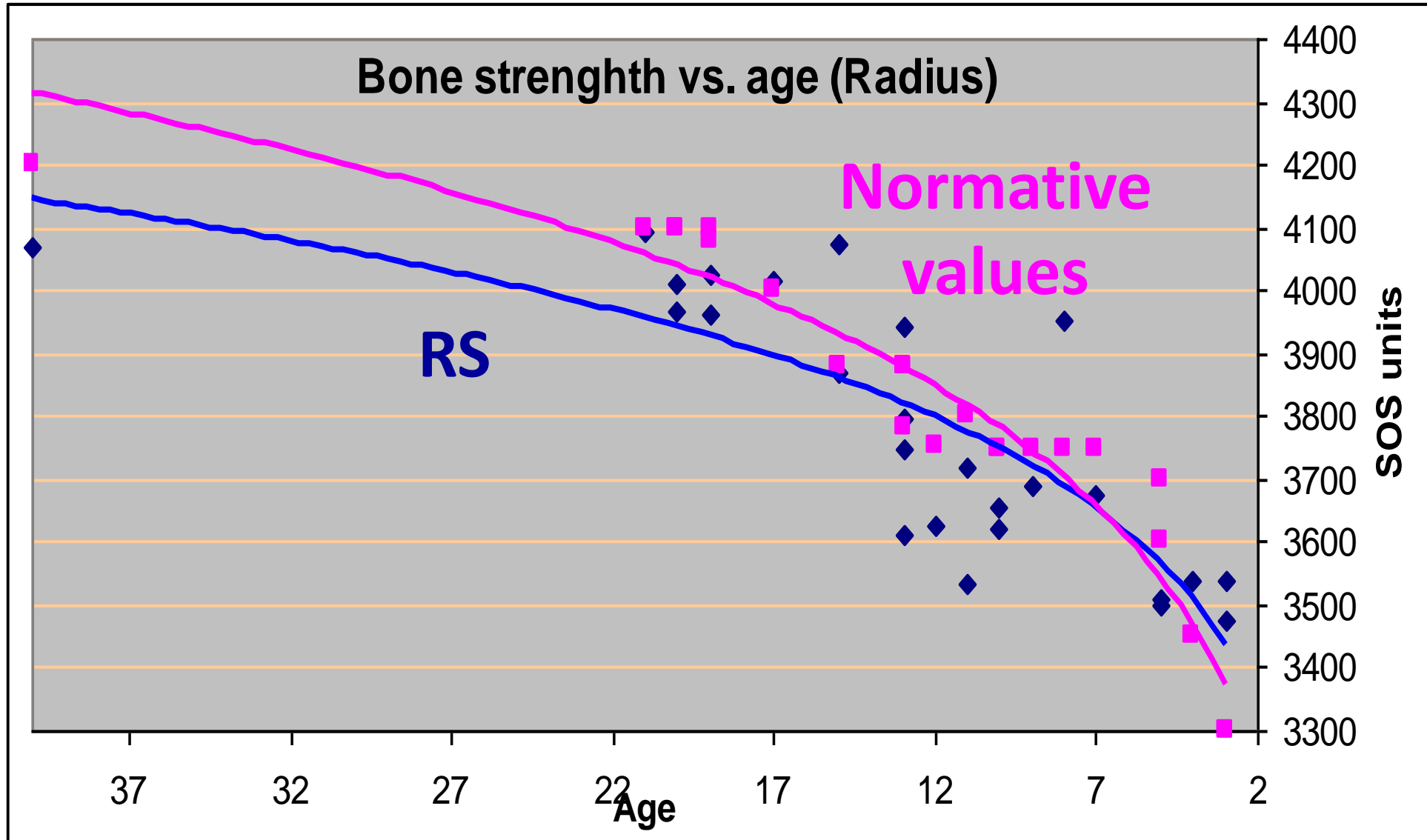
Symptoms & Signs:

- No symptoms in early stages

Symptoms occurring late include:

- Bone pain or tenderness
- Fractures with little or no trauma
- Loss of height Low back pain due to fractures of the spinal bones
- Neck pain due to fractures of the spinal bones
- Stooped posture or kyphosis

Osteoporosis - RS Vs. Norm



Treatment

The goals of the treatment:

- Prevent or slow down bone loss/weakening
- Prevent bone fractures
- Control the pain
- Minimize risk of falling

Those goals could be achieved through:

- Physical activity
- Nutrition
- Medication

Physical activity

Weight bearing exercises:

- Walking, Running, Stair climbing, Dancing, standing

Treadmill training



Physical activity

Weight bearing exercises:

- Walking, Running, Stair climbing, Dancing

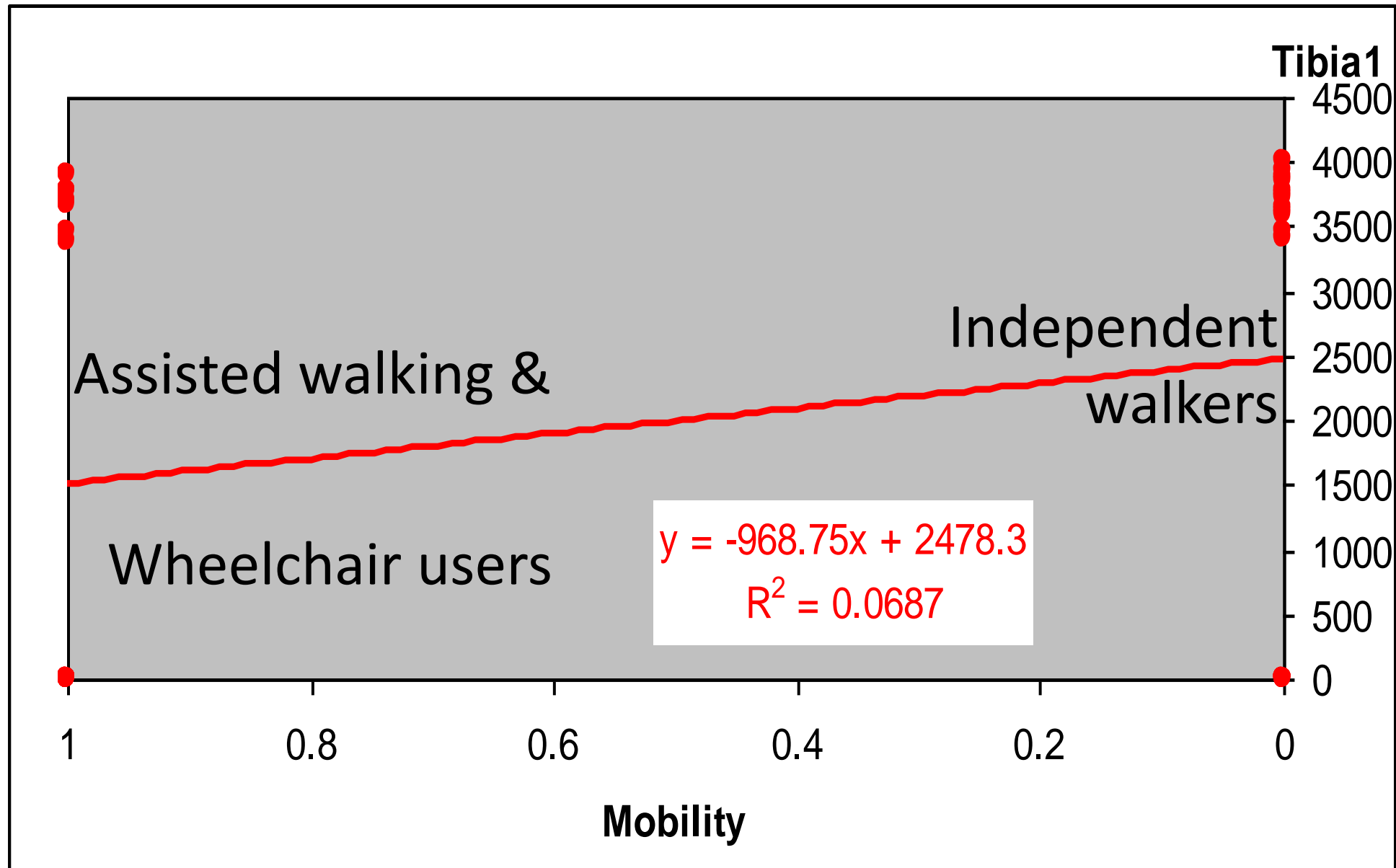
Resistance exercise

- Weights, Rowing machines,

Balance exercises

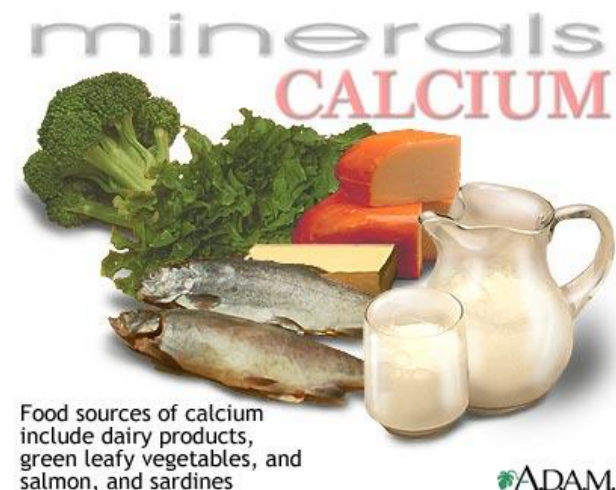
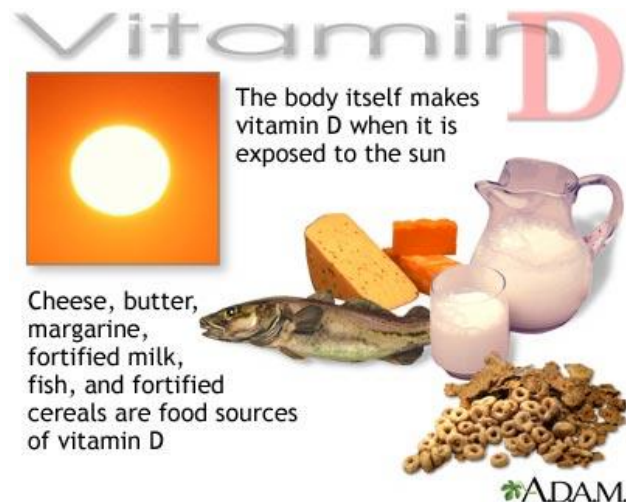
- Balance board,

Mobility and bone strength

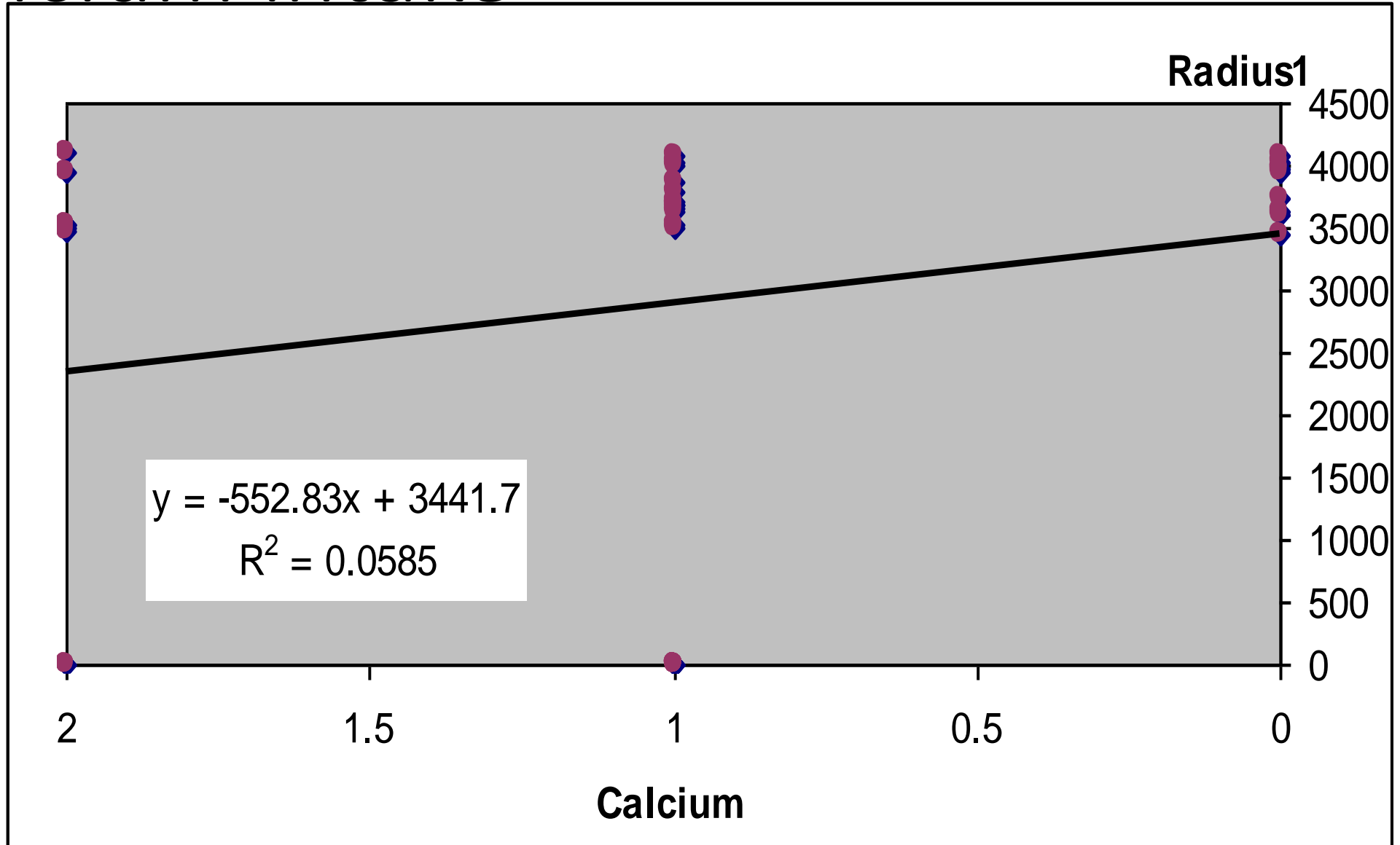


Nutrition

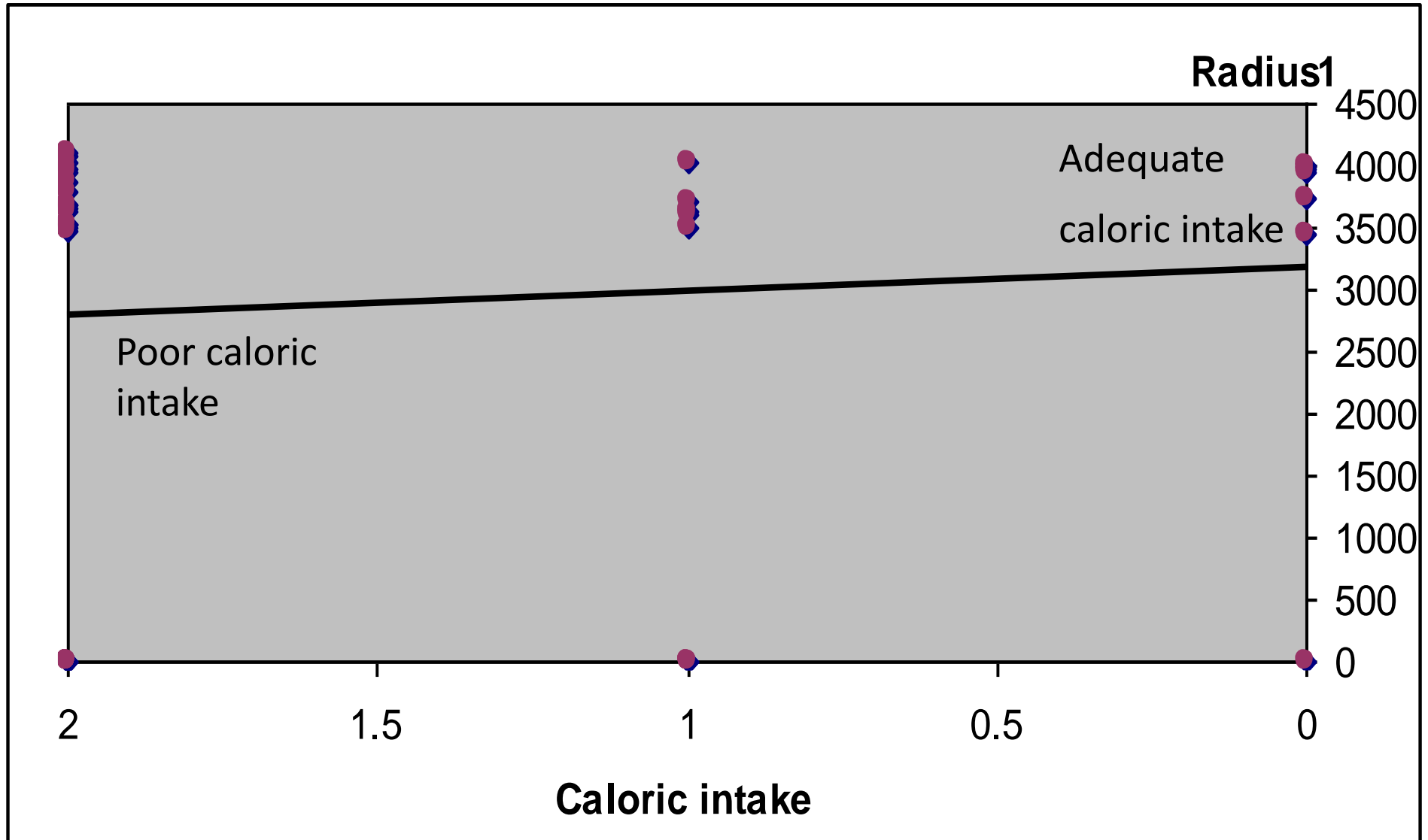
- Get at least 1,200 milligrams per day of calcium and,
- 800 - 1,000 international units of vitamin D3



Calcium intake



Caloric intake



A case study – treatment for severe osteoporosis

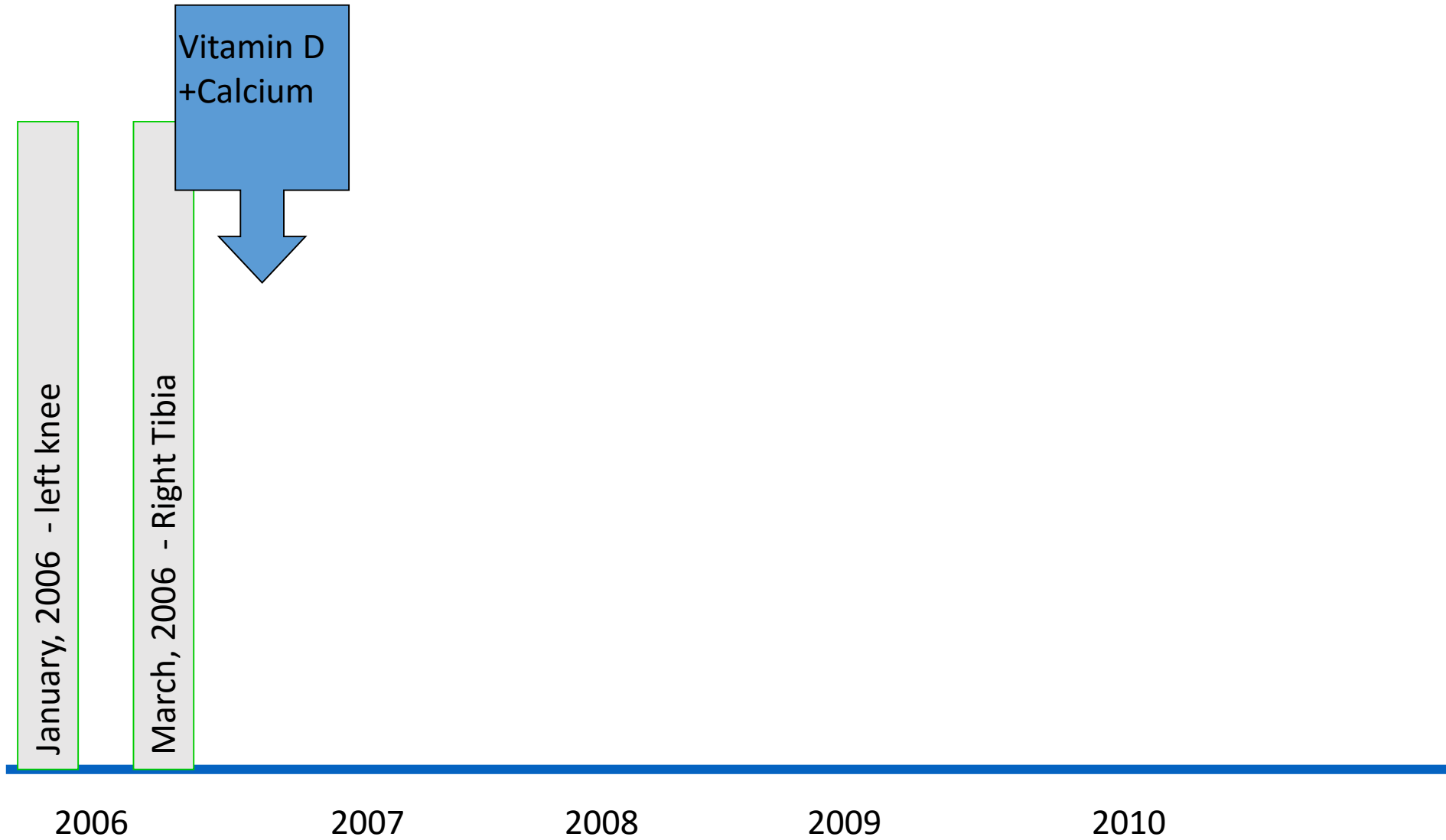
Child's name: M.T.

Date of birth: Jan, 2001

Initial development: normal pregnancy
and delivery, no complications

Diagnosis: Rett syndrome (11/2)

Bone fractures

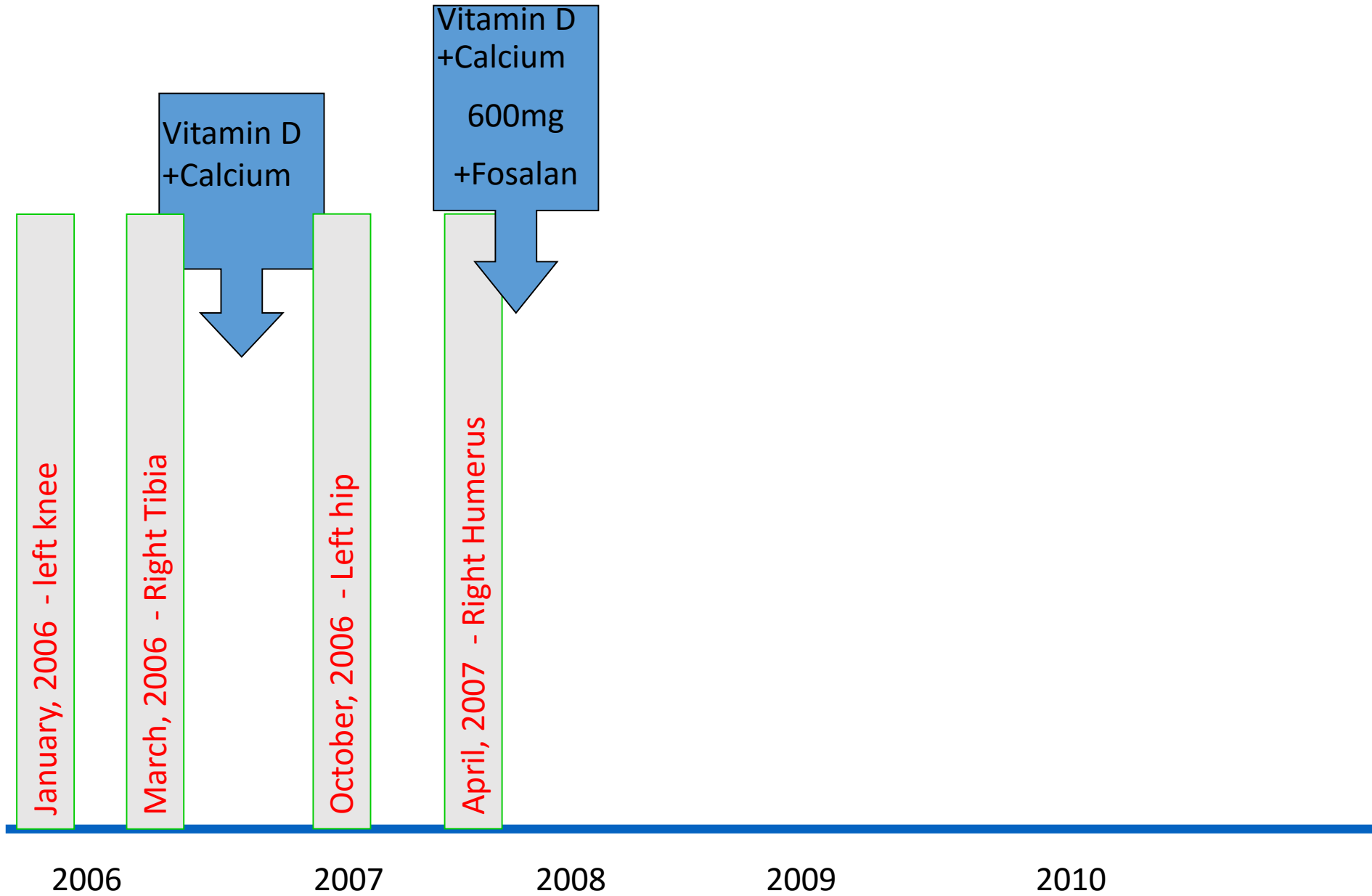


DXA findings August 2006

<i>PR%</i>	<i>Z Score</i>
% of bone density for age 25	SD between measured value and normative values for age
<u>31%</u>	<u>- 3.8*</u>

*Value lower than -2.5 = Osteoporosis

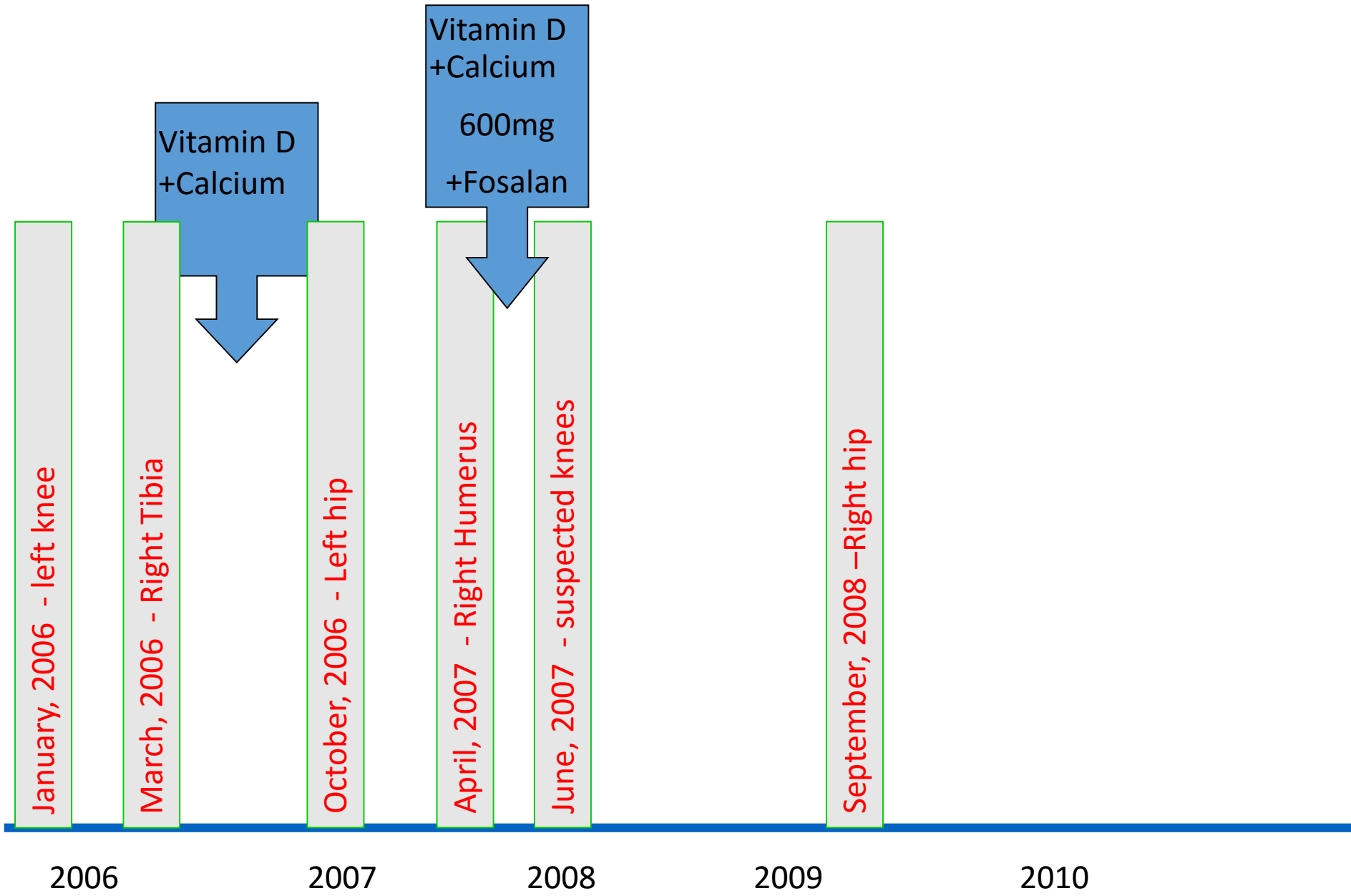
Bone fractures



Fosalan

- Fosalan is part of a family of drugs called bisphosphonates
- It is used to prevent osteoporosis by preventing bone breakdown





Pamidronate (Aredia)

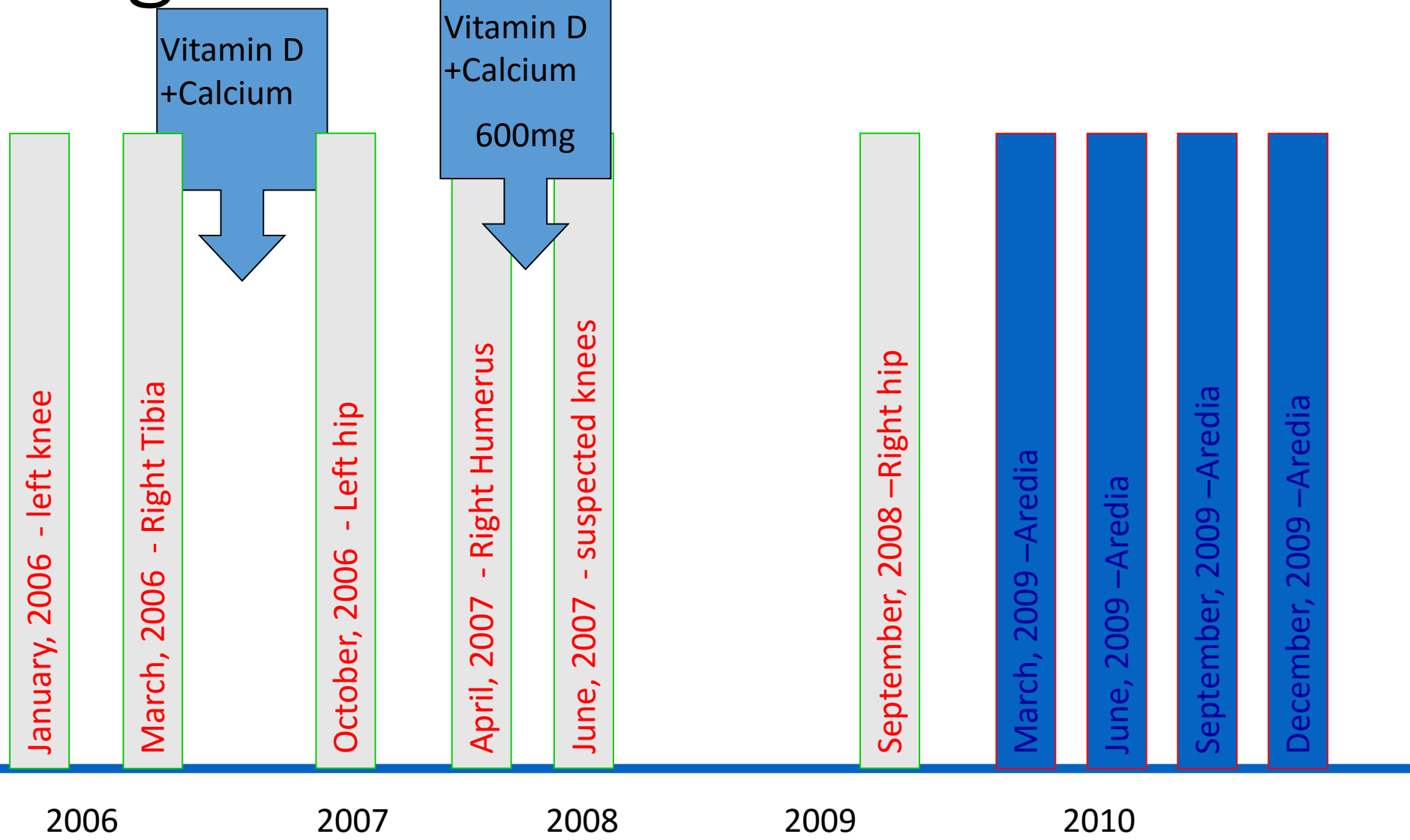
Treatment protocol:

A 30 mg dose is inserted through an Intravenous drip every three month for three days, 4 hours each day.

During each treatment blood pressure and Pulse are measured every hour.

Each day blood is measured for Urea, Calcium, Magnesium, Natrium.

Management



DXA Follow up - 2010

- Mineral density: 0.49 (0.33)
- % of norm for age: 83% (58%)
- Z score: -1.3 (-3.8)
- Comparison with previous findings: +49.5%

Present

- March 2010 – normal BMD discontinue Fosalan – No fractures

Future

April 2012 – another treatment with Aredia