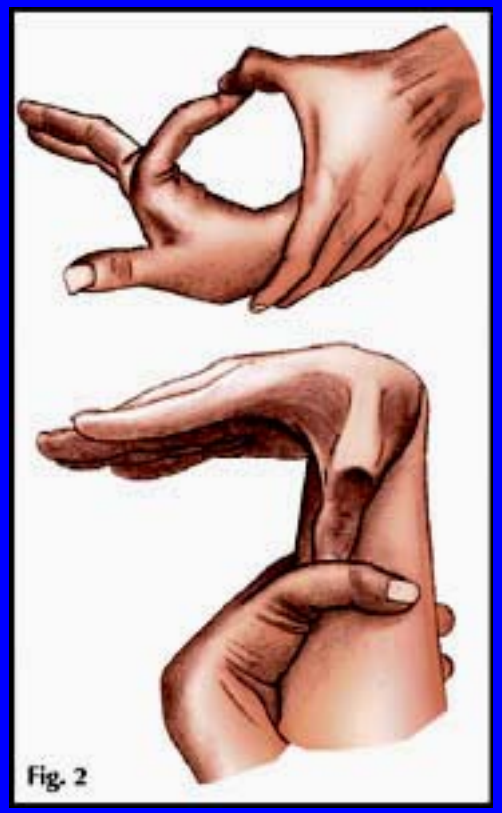
Hyperlaxity

Joint laxity

Joint hypermobility

Range of motion of a joint is more than normal



Diagnostic criteria

- Wynne-Davies criteria (at least 3)

1. Elbow extension beyond straight
2. Ability to touch the thumbs to the forearm passively on wrist flexion
3. Fingers that lie parallel to the forearm on passive extension of the of the wrist
4. Passive ankle dorsiflexion > 45
5. Knee extension beyond straight

Classification

1. Physiological
2. Generalized
3. Inherited joint laxity syndromes
4. Inherited CT diseases
5. Joint laxity in skeletal dysplasia and dwarfism
6. Acquired joint laxity

Physiological joint laxity

- Neonates
- Pregnancy

Generalized joint laxity

- Asians > Africans > Caucasians
- Females > males
- Decrease with age

- Disadvantages
  - Predisposed to traumatic and overuse lesions
  - Joint instability
  - Joint arthritis
  - Other organ involvement

Generalized joint laxity

- Disadvantages
  - Predisposed to traumatic and overuse lesions
  - Joint instability
  - Joint arthritis
  - Other organ involvement

Inherited joint laxity syndromes

- Ehler – Danlos syndrome

Inherited CT diseases

- Marfan syndrome
- Marfanoid hypermobility
- Achard syndrome (Arachnodactyly + hyperlaxity of hands and feet only)
- OI
- Larsen syndrome

Joint laxity in skeletal dysplasia and dwarfism

- Spondyloepiphysial dysplsia with hyperlaxity
- Pseudoachondroplasia
- Morquio syndrome
- Others

Acquired

- Steroid therapy
- Chronic renal failure
- SLE

Management

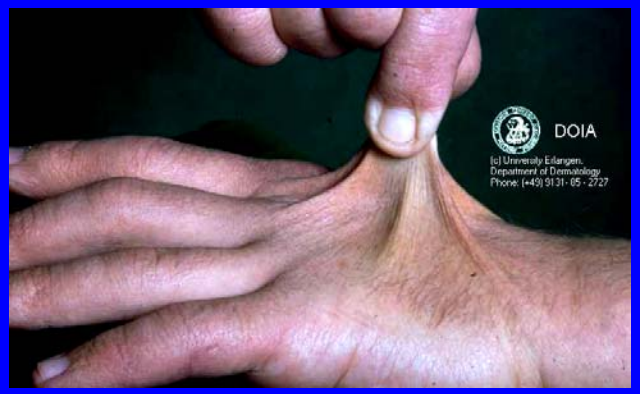
- Splints
- Stabbing
- Muscle strengthening programme

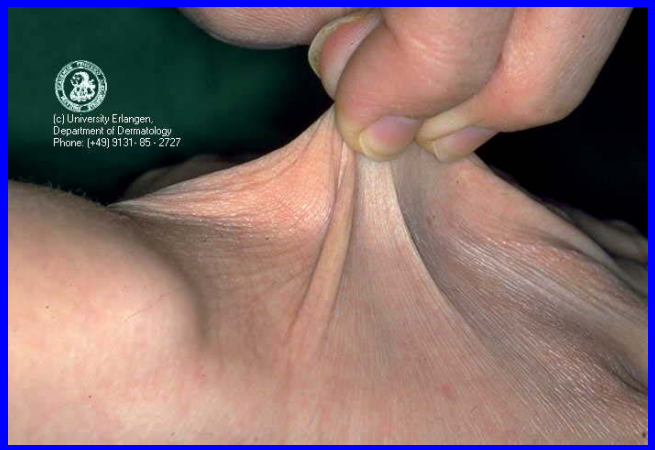
- Surgery
  - Bony surgeries is better then soft tissue

Ehlers-Danlos Syndrome

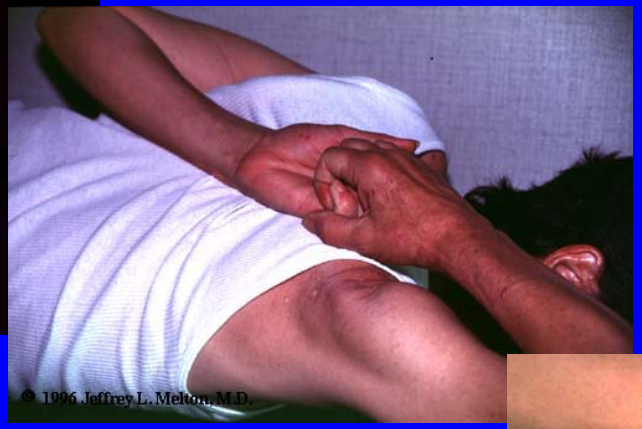
- a family of disorders caused by a variety of defects in collagen metabolism

- hyperelasticity of the skin.
  - Palm and sole
- hyperextensibility of skin,

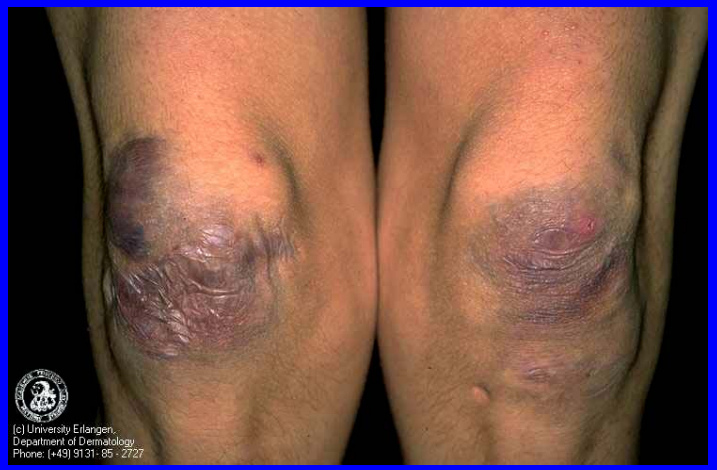




- Joint hypermobility,



- easy bruisability,



- soft tissue and bony fragility,
- calcification of soft tissues, and varying degrees of osteopenia are also present
- Bleeding gums

Type	Mutation	Inheritance	Features
I (gravis or classic)	Unknown	AD	Lax, fragile skin and lax joints
II (mitis or mild)	Unknown	AD	Mild type I features
III (benign hypermobility)	Unknown	AD	Severe hypermobility with multiple dislocations
IV (ecchymotic)	Type III collagen	AD/AR	Vascular fragility, thin skin, and hypermobility
V (X-linked)	Unknown	X-linked	Type II features
VI (ocular-scoliotic)	Lyslhydroxylase	AR	Skin laxity, ocular fragility, and scoliosis
VII (arthrochalasis multiplex)	Type I collagen	AD/AR	Multiple joint dislocations and mild skin laxity
VIII (periodontitis)	Type III collagen	AD	Skin and joint laxity with periodontitis
IX (occipital horn syndrome)	Copper metabolism	X-linked	Skin laxity
X (fibronectin abnormality)	Unknown	AR	Skin laxity and easy bruising