

## Ossification disease

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### 1. Introduction

Fibrodysplasia ossificans progressive(FOP) is a disorder in which muscle tissue and connective tissue such as tendons and ligaments are gradually replaced by bone (ossified), forming bone outside the skeleton that constrains movement. This process generally becomes noticeable in early childhood, starting with the neck and shoulders and proceeding down the body and into the limbs.

### 2. The causes of the disease

The cause of this disease is due to a defect in (ACVR) the genes responsible for the formation of bones, and this occurs during the formation of the fetus and its own bones. This defect occurs and this gene develops after the birth of the child as well, and the defect continues to grow and develop as well.



### 3. Symptoms of the disease

- Spontaneous of inflammation or soft tissue swelling.
- increased flare-ups after injury,
- viral illness, or immunizations.
- difficulty moving.
- frequent injury due to falling.
- malformations of the big toe.



### 4. Complications of the disease

People with this disease died at an early age due to :  
Respiratory failure due to stiffening of the bones around the rib cage and the inability to breath normally. Where the jaw bones also harden and its movement decreases, the patient finds it very difficult during speech or when eating .

### 5. Treatment

FOP has no known effective treatments, however clinical trials are being conducted. During acute flare-ups, several treatments (most notably corticosteroids) and non-steroidal anti-inflammatory medications (NSAIDs) have been used to reduce pain and swelling associated with FOP.

### 6. Summery

This disease is about the soft tissues becoming bones, the cause of it is genetic, the main symptoms is that they can't eat and breath normally and last the treatment , there is no effective treatment until now.

### 7. References

"Medical Definition of fibro dysplasia ossificans progressive". [www.merriam-webster.com](http://www.merriam-webster.com).