Symphalangism

OVERVIEW
Symphalangism is a congenital stiffness in the fingers or thumb due to a failure of the developing bone to fully separate as typically happens during fetal growth. With this incomplete separation, the joint does develop normal but is stiff. Symphalangism is typically found in the fingers, but can also affect the thumb. The cause of symphalangism is not known. It is sometimes found in more involved genetic conditions. Most patients will function well despite the stiffness and no treatment is needed.

BACKGROUND
The cause of symphalangism is not known. It is felt to be a failure of segmentation that occurs during early fetal development, which happens early in the pregnancy. The fingers are typically forming and developing by 6-8 weeks of development. Fortunately, by this point in fetal development, most other structures and the internal organs are already well developed. There are occasionally some associated abnormalities in the eyes (macular coloboma) or the genitals (vaginal septum or urethral incontinence). It is not uncommon to have associated shortening in the other bones of the hands (brachydactyly) or other failures of segmentation in nearby bones (carpal or tarsal coalitions).

CLINICAL PRESENTATION AND DIAGNOSIS
While the stiffness is usually present at birth, often it is not recognized until later when the child starts moving and grasping with the fingers. In most patients there are no symptoms related to the stiffness. Xrays are generally obtained to see the bone structure of the fingers and to look for associated short bones or coalitions. For young children, often the xrays do not show any specific abnormalities. As the bones mature, the joint structure become more defined and there is often a small irregular shaped joint, but sometimes there is little or no visible joint.

TREATMENT
Often the finger is stiff but does not cause problems or limitations for activities of daily living. Provided function is good, no treatment is needed.

For patients with multiple affected joints, surgical treatment...
has been attempted usually without substantial benefit. Almost all attempts to do this in childhood have been unsuccessful. Surgical treatment in adults has been done more widely using joint replacement principles, but generally with limited benefit. The consensus is that the results do not justify the procedure. Occasionally, a finger with associated angular deformity might benefit from realignment.

Given that there is little or no functional or cosmetic limitations of this condition and given that treatment options are of little value, treatment is generally not indicated or recommended.

MORE INFORMATION
Further information can be obtained on the internet. Your local public library can help you explore these sources if you are interested. Two good sites for expert and peer reviewed information are the American Academy of Orthopedic Surgeons at www.aaos.org and www.emedicine.com.

FEEDBACK
If you have questions or comments, please contact the office or submit them to the web site at www.pedortho.com.