Self suspending sockets

Description

The self suspending socket attaches the prosthesis using the socket brim. The brim is extended past the proximal joint then narrows to provide a clip or grasp over the wider region of the joint.

PTS wedge

PTS (patella tendon supporting) sockets are a transtibial system in which the socket cover both the condyles of the femur and features a high anterior trim line which encloses the patella. These sockets provide significantly more medio-lateral stability than the conventional PTB socket.

PTS sockets all feature a wedge on the medial surface of the socket or liner. The wedge adds pressure over the medial femoral condyle while making the socket less difficult to don.

KBM / supracondylar

The KBM (Kondylen Bettung Münster) was developed by orthopedic surgeon Götz Gerd Kuhn in Münster (Germany) around 1960.

The term “Kondylen Bettung” translates to “bedding or nesting the condyles”. This style of socket is now commonly referred to as a supracondylar.

Like PTS (patella tendon supporting) sockets, the KBM is a transtibial system where the socket brim covers both the condyles of the femur. The points of difference are the low anterior trim line which does not enclose the patella, and the omission of a medial wedge. KBM sockets provide significantly more medio-lateral stability than the conventional PTB socket, but less than the PTS as the socket sides are more flexible.

Supracondular / Münster

The Münster socket was developed in 1954 by orthopedic surgeons Oscar Hepp and Götz Gerd Kuhn in Münster, Germany.

The system is the transradial equivalent of the KBM socket in which the socket brim extends over the condyles of the humerus. A notch may be included above the olecranon in the posterior of the socket. This provides additional attachment and stability.

The Münster socket is very effective at suspending a prosthesis from a very short transradial stump.

Advantages

- Simple
- Durable
- Inexpensive
- Light weight
- Shorter stumps can be fitted than with the conventional socket designs
- Short stumps are afforded more medio-lateral stability
- There is less constriction in knee flexion
- Donning is simplified
- Fairly cosmetic

Disadvantages

- Not a transfemoral option and not available for all amputation levels
- Suspension is relatively poor

- Requires more time and expertise to fabricate and fit
- Socket pressures may cause discomfort