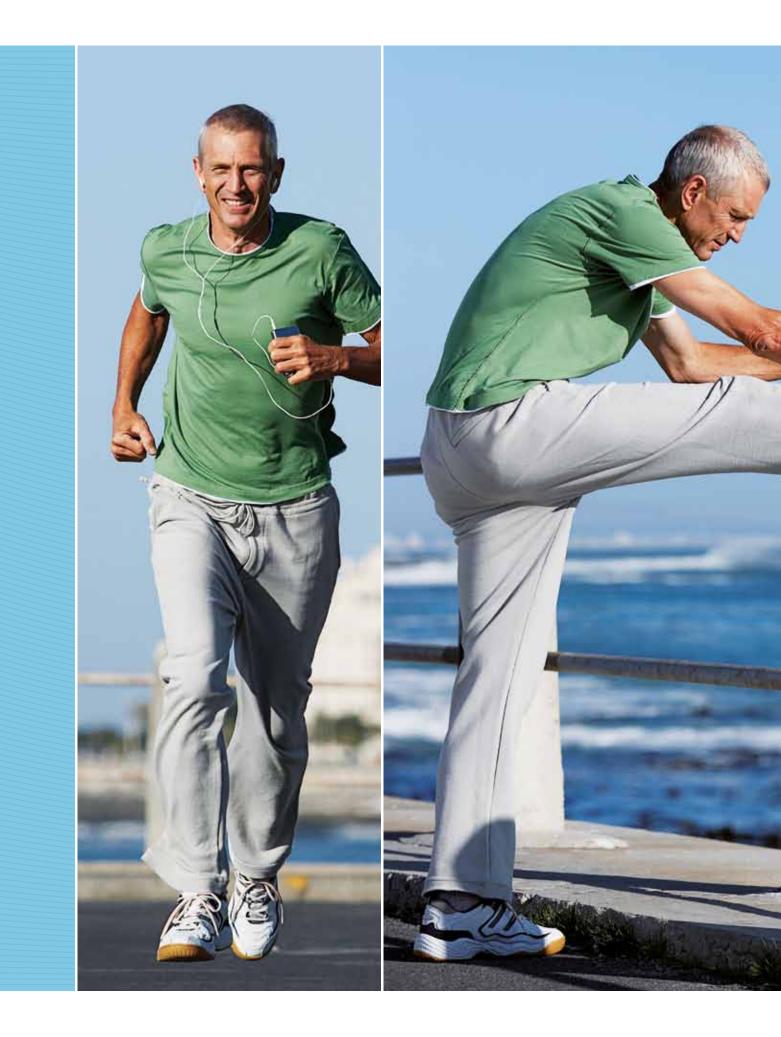


# Osteoarthritis therapy

M.4°s OA M.3°s OA Collamed° OA Genumedi°



# **Osteoarthritis Therapy**

Incorrect positioning of tibia to femur leads to varus or valgus malposition. This can cause arthritis and destruction of the knee's hyaline cartilage.

A wide variety of conservative and operative treatments can be applied to the therapy of the different stages of osteoarthritis. These all have the aim of allowing the patient to move without pain once again. At the early stages of osteoarthritis the main focus is on stress reduction, thereafter the later stages of osteoarthritis often require medical supplies /orthoses that ensure both firm hold and maximum protection. medi products provide the right medical care for each stage of osteoarthritis and offer a high level of technology for maximum customer satisfaction.

#### Your key medi benefits

- Due to the medi compression technology and other product benefits, medi products provide premium
- medi is constantly researching and applying ne
- medi products are easy to handle due to low profiles and light constructions
- High compliance and customer satisfaction confirm medi as a leading global player in the healthcare market

# Development of osteoarthritis

## Arthrosis is catalysed into 5 stages on the basis of the severity of the disease.

#### grade 0

Healthy cartilage

#### grade I

The cartilage layer is still undamaged, but is soft. **Our reference: Genumedi** 

#### grade II

Initial damage may occur in the cartilage cell structure. The surface of the cartilage is roughened. **Our reference: Collamed OA, M.3s OA** (conservative use)

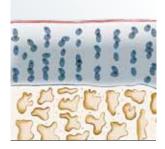
#### grade III

The cartilage surface is damaged. The first deep cracks are formed.

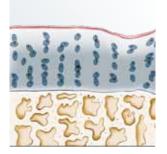
Our reference: M.3s OA (conservative use), M.4s OA (post-operative and conservative use)

#### grade IV

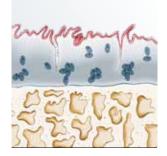
Total loss of cartilage. The bone is now exposed and rubs against the opposite side. Our reference: M.3s OA (conservative use), M.4s OA (post-operative and conservative use)



Physiological condition



Initial degeneration



Advanced degeneration



Exposed bone

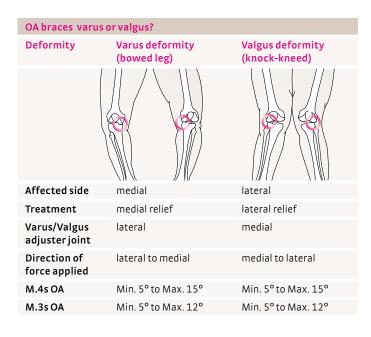
# The correct choice of orthosis

### It is quick and easy to select the correct OA brace.

The illustration below will help you to choose the perfect brace for your patients' needs. In order to make it even easier, medi orthoses include the deformity in question in the product name.

A patient with a bowed leg – a varus deformity – is best treated with a varus brace of the correct size.

The minimum and maximum angles result from our own experience. In individual cases the range for using an unloading brace can differ. We do not recommend the use of a medi OA knee brace if the correction required is outside of these limits. For further details please seek medical advice.



# medi – Quality out of a sense of responsibility

medi braces use a triangle of force and counteracting force. This ensures lateral stabilisation of the knee and leads to an optimised healing process.

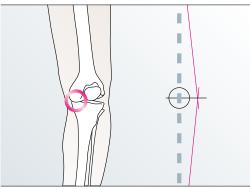
# 3-point principle to reduce stress

If the cartilage is damaged, an OA brace can act rapidly. The 3-point unloading principle applies pressure to the thigh, calf and knee joint. For this to be effective without causing further

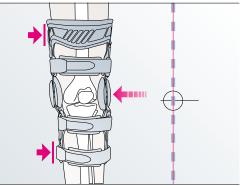
aggravation the soft tissue in these areas must be in good conditions. Using a brace with 3-point principle helps to keep the knee in the correct joint line.

#### Advantage for clients:

- reduces stress on the affected region of the knee
- pain can be rapidly reduced
- mobility can be restored
- normal activities can be performed without pain: cycling, climbing the stairs, shopping etc.
- possibility of loosening the knee joint
- possiblity of a successive approach to the natural joint line



Strain without orthosis



Strain without orthosis 3-point principle for guaranteed protection

#### Stabilisation at a high level – with the 4-point principle

Aside from the 3-point principle of stress reduction, the knee is stabilised with the 4-point principle.

Only then is functional therapy possible.

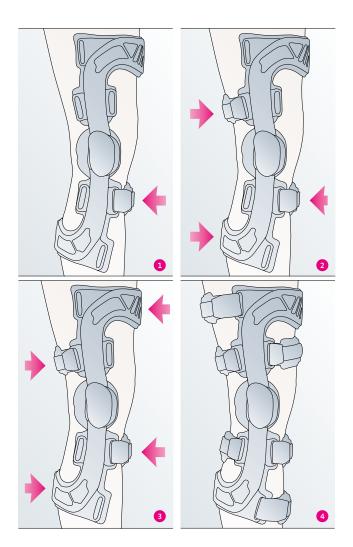
Strap number 4 of the orthosis is the key (1): This keeps the shinbone in the correct position near the joint. The resulting forces are compensated through a triangle of forces (2).

At the same time, rotational movements are restricted.

This system is complemented with a fourth point, which provides the system with further stability. The combination of the two triangles of forces gives the 4-point principle (3). The additional straps ensure that the orthosis is securely attached and is pleasant to wear (4).

#### Advantage for clients:

- avoids downwards migration
- stabilisation of the knee joint
- supports the healing process



# M.4<sup>®</sup>s OA

4-point knee orthosis for control of anterior and posterior tibial translation. 3-point off-loader for varus or valgus pressure relief

#### Product advantages

- pressure relief of the medial or lateral joint compartment due to the 3-point principle which offloads the affected compartment into a varus or valgus position
- the 4-point principle allows stability, protection, pain relief and restoration of mobility
- various facilities to be used during the whole therapy owing to a huge range of extensions limitations (0°, 10°, 20°, 30°, 45°) and flexion limitations (0°, 10°, 20°, 30°, 45°, 60°, 75°, 90°, 120°), safeguards against hyperextension and the possibility of immobilisation at 0°, 10°, 20°, 30°, 45°
- the torsial stability is improved due to the "S" profile of the M.4s OA and the anatomically premoulded frame, whilst following natural alignment of femur and tibia.
- hinges proximal to knee joint allow precise off loading of the knee
- the orthosis ensures excellent comfort due to the new soft-grip padding material and the air condyle pads with skin-grip system
- numbered straps ensure a simple fastening sequence
- the compliance of patients is high thanks to polycentric hinges and the strong, low profile and light weight frame
- under sleeve also available upon request

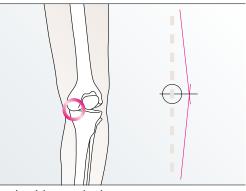
#### Indications

- conservative treatment of complex ligament instability, particularly in combination with unilateral osteoarthritis
- conservative treatment of advanced unilateral osteoarthritis
- post-operative pressure relief and compartmental protection after fractures of the tibial head, cartilage surgery, meniscus refixation, correction osteotomy
- instability of the cruciate ligaments with pressure relief of the medial or lateral compartment
- for functional pre or post-operative care of knee instabilities

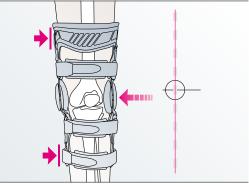




M.4s OA – 100% aluminium frame



strain without orthosis



strain with orthosis: 3-point principle for guaranteed protection



M.4s OA						
	size	circumference	left	right		
Varus	XS	31 - 37 cm	G.027.201	G.027.301		
	S	37 - 45 cm	G.027.202	G.027.302		
	М	45 - 51 cm	G.027.203	G.027.303		
	L	51 - 57 cm	G.027.204	G.027.304		
	XL	57 - 65 cm	G.027.205	G.027.305		
	XXL	65 - 74 cm	G.027.206	G.027.306		
Valgus	XS	31 - 37 cm	G.028.201	G.028.301		
	S	37 - 45 cm	G.028.202	G.028.302		
	М	45 - 51 cm	G.028.203	G.028.303		
	L	51 - 57 cm	G.028.204	G.028.304		
	XL	57 - 65 cm	G.028.205	G.028.305		
	XXL	65 - 74 cm	G.028.206	G.028.306		

**measurement:** circumference of thigh 15 cm above the centre of the patella (measured at the medial side of the thigh)



medial strap design at thigh level



allen key included for customised adjustments

# M.3<sup>®</sup>s OA

#### Single hinged functional knee orthrosis brace for the treatment of light osteoarthritis

#### **Product advantages**

- pain relief and correction of the lateral or medial joint space due to the 3-point principle by reducing weight-bearing on the affected side of the joint
- numbered straps ensure a simple fastening sequence
- the orthosis ensures excellent comfort due to the new soft-grip padding material and the air condyle pads with skin-grip system
- hinges proximal to knee joint allow precise off loading of the knee
- high compliance thanks to polycentric hinges and the strong, low profile and light weight frame
- the torsial stability is improved due to the anatomically premoulded frame
- The limitation of extension at 0° and 10° allows precise stabilisation during the healing process
- The varus/valgus angles can be readjusted according to the healing process due to individually adjustable angles with a low profile joint

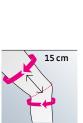
#### Indications

- conservative treatment of pronounced unilateral, medial or lateral osteoarthritis and arthritis of the knee
- permanent care where surgery is contra-indicated
- interim care until decision has been taken on possible surgical procedures such as correction osteotomy or knee joint replacement
- for weight bearing relief after surgery for medial or lateral fractures of the tibial head

## Especially developed for the following target groups:

- patients with light and medium gonarthrosis suffering from varus or valgus deformity
- lightweight patients
- patients who require light and flexible hinge constructions for a higher compliance







front

varus			
size	cm	article number	
		left	right
XS	31-37	G.045.201	G.045.301
S	37 – 45	G.045.202	G.045.302
m	45 - 51	G.045.203	G.045.303
1	51-57	G.045.204	G.045.304
xl	57 - 65	G.045.205	G.045.305
xxl	65 – 74	G.045.206	G.045.306
valgus			
valgus size	cm	article numbe	r
-	cm	article numbe left	r right
-	<b>cm</b> 31-37		-
size		left	right
<b>size</b> xs	31-37	<b>left</b> G.046.201	<b>right</b> G.046.301
size xs s	31 – 37 37 – 45	left G.046.201 G.046.202	<b>right</b> G.046.301 G.046.302
size xs s m	31 - 37 37 - 45 45 - 51	left G.046.201 G.046.202 G.046.203	<b>right</b> G.046.301 G.046.302 G.046.303

measurement: circumference of thigh 15 cm above the centre of the patella (measured at the medial side of the thigh)

# **Collamed**<sup>®</sup> OA

3-point, varus/valgus off loading soft osteoarthritis knee brace made of Airtex material

#### Product advantages

- various facilities to be used during the whole therapy owing to a huge range of extensions limitations (0°, 10°, 20°, 30°, 45°) and flexion limitations (0°, 10°, 20°, 30°, 45°, 60°, 75°, 90°, 120°) and the possibility of immobilisation at 0°, 10°, 20°, 30°, 45°
- the Collamed OA combines the advantages of a proprioceptive soft brace and a rigid brace.
- the varus/valgus angle can be individually adjusted due to inflatable condyle pads
- the 3-point principle allows pain relief by reducing weight-bearing on the affected side of the joint
- perfect fit and non-slipping due to the polycentric physioglide hinges based on the principle of 4-chain linkage; the natural motions of the knee can be closely mimicked
- the moisture transport is optimised and ensures the highest comfort in hot climates due to the elastic, breathable and moisture wicking Airtex-material

#### Indications

- conservative treatment of mild to moderate unilateral, medial or lateral osteoarthritis of the knee
- permanent long term care where surgery is contra-indicated





inflatable condyle pad



#### **Product benefits**



physioglide<sup>\*</sup> hinge A unique polycentric hinge design that closely mimics the roll and glide motion of the knee



medi airtex



#### Collamed OA

conta	condition of						
size	circumference cm	article number	article number				
		left varus / right valgus	left valgus / right varus				
XS	31-37	G.165.001	G.166.001				
S	37 – 45	G.165.002	G.166.002				
М	45 - 51	G.165.003	G.166.003				
L	51-57	G.165.004	G.166.004				
XL	57 – 65	G.165.005	G.166.005				
XXL	65 – 74	G.165.006	G.166.006				

measurement: circumference of thigh 15 cm above the centre of the patella (measured at the medial side of the thigh)







## Your customers will return with medi

Your customers will feel the positive effects of medi compression so rapidly that they will actively wear their medi products and will return again and again.

medi compression is our quality seal for highly active compression therapy - this means premium knitted products, the result of sixty years of research and development. The technology guarantees precise and consistent compression. Swellings and bruising disappear more quickly. Pain lessens, the joint is stabilised and mobility is enhanced. The actively breathing medi joint orthoses ensure knitted comfort zones for first class comfort and freedom of movement. Re-gain your fitness level with medi compression – quality made in Germany.



# Genumedi®

#### Knee support with patella silicone ring

#### Product advantages

- stabilisation of the knee due to a maximum pressure relief for the patella with a special insert for the silicone ring
- an extra wide version available at no extra cost, for those patients with above average thigh circumference, offers high comfort (available in silver and sand); available with a 5 cm top-band (sand only)
- due to the specially designed silicone ring enclosing the patella, the massage effect improves the blood circulation and aids absorption of haematomas and oedemas
- Genumedi offers a non-slip system due to the textured silicone running medially and laterally
- highly elastic and breathable material incorporating Clima Comfort patented technology which wicks moisture away from the skin, leaving the skin feeling fresh all day
- due to the uniquely knitted comfort-zone the pressure is taken off the back of the knee and prevents constriction
- proprioception and muscular support are improved due to the seamless, tailored knee support

#### Indications

- slight instability of the knee joint
- articular effusions and swellings
- chronic post-operative and post-traumatic inflammation
- patella chondroplasty
- osteoarthritis and arthritis
- damage to the meniscus
- patello femoral pain syndrome





silver

black



**Product benefits** 









Comfort Zone at the back of the knee





Improved fit due to hidden, gradually extended knitted fabric, especially at the edges.

sand



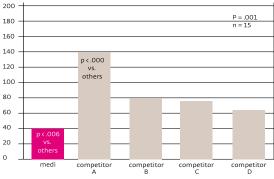
Anti-slip system

#### Features



Maximum pressure relief for knee cap The open inner border of the silicone patellar ring ensures that the knitted fabric remains as elastic as possible, reducing the contact pressure on the knee cap during movement. This is particularly important as, for many indications, retropatellar cartilage damage is already present.

#### contact pressure on the kneecap (in mm HG)



#### Wide range of versions

To meet the requirements on modern soft knee supports in terms of fit, comfort and effectiveness, Genumedi offers a range of versions that are optimally geared towards the different leg shapes and proportions of the wearers, yet still provide the required compressive effect.

#### Genumedi Standard

for standard leg proportions

#### Genumedi extra-wide (silver)

for disproportionate, muscular thigh proportions. NEW: now comes with an additional silicone beaded topband as standard for an even better hold.

#### Genumedi extra-wide (sand)

for disproportionate, smooth thigh proportions, as before with silicone beaded topband for a firm and soft elastic support edge.

#### Genumedi made-to-measure

for more unusual leg proportions in the thigh/lower leg area, available in silver or sand, with an optional additional grip top.

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