

## Reference

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# A clinical study on the effectiveness of a medial unloader brace (Agilium Reactive®) in patients with unicompartmental knee OA.

Eine klinische Studie zur Wirksamkeit einer medialen Entlastungsorthese (Agilium Reactive®) bei Patienten mit unikompartimenteller Gonarthrose

MOT: Medizinisch Orthopädische Technik 2017; 1: 32-36.

## Products

### Agilium Reactive

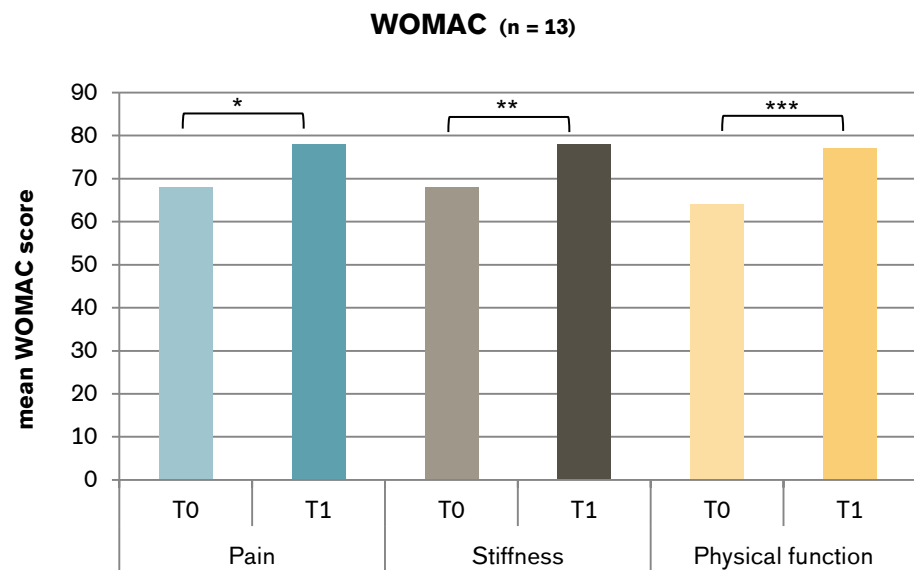
## Major Findings

With Agilium Reactive:

WOMAC score

→ **Significant improvements in all WOMAC sub-scores**

**Agilium Reactive showed significant improvements in all WOMAC sub-scores**



T0= baseline; T1= after 4-week use of Agilium Reactive

Significant improvements: \*p = 0.003; \*\*p = 0.043; \*\*\*p = 0.001

Patient satisfaction and compliance

→ **No or slight restrictions due to orthosis**

→ **No or slight discomfort while wearing the orthosis**

→ **Easy or learnable handling of the orthosis**

→ **Orthosis can be worn over long-time period**

→ **Orthosis is recommended by the patients**

<b>Population</b>	Subjects:	13 patients (6 male, 7 female)
	Mean age:	61.2 ± 15.9 years (range 41-91 years)
	Affected side:	left (4 patients); right (7 patients); both (2 patients)
	OA classification:	- grade I: 2 patients - grade II: 2 patients - grade III: 5 patients - grade IV: 4 patients
	Inclusion criteria:	- unicompartmental medial knee OA (Kellgren-Lawrence grade I-IV) - genu varum - older than 40 years
Exclusion criteria:	- unicompartmental lateral knee OA	

**Study Design**      Prospective before-and-after study with 4-week follow-up (with Agilium Reactive):



## Results

Functions and Activities						Participation
Biomechanics – Static measures	Biomechanics – Gait analysis	X-Ray	EMG	Functional tests	Clinical effects	Satisfaction

Category	Outcomes	Results for Agilium Reactive				Sig.*
Clinical effects	<b>WOMAC score</b>	<b>Baseline vs. 4-week follow-up</b>				
	Pain sub-score	+ 19% (from 68 to 78 points)				++
	Stiffness sub-score	+ 28% (from 68 to 78 points)				++
	Physical function sub-score	+ 30% (from 64 to 77 points)				++
Satisfaction		no	slight	moderate	strong	
	Restrictions	31%	54%	15%	0%	n.a.
	Discomfort	46%	39%	15%	0%	n.a.
	Handling	easy: 46%	learnable: 54%	difficult: 0%		n.a.
	Long-term use	yes: 62%	reluctant: 38%	no: 0%		n.a.
	Recommendation	yes: 100%				n.a.

\* no difference (0), positive trend (+), negative trend (–), significant (++/--), not applicable (n.a.)

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## Author's Conclusion

In summary, the presented results demonstrate the clinical evidence to justify the use of the Agilium Reactive® in patients with genu varum and medial knee OA.

“Zusammenfassend zeigen die vorgestellten Ergebnisse klinische Evidenz vor, um den Einsatz der Agilium Reactive® bei Patienten mit Genu varum und medialer Gonarthrose zu rechtfertigen.” (Liebau et al. 2017)

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