



Annual Report 2025



GLA:D® Denmark Annual Report 2025

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Photos: GLA:D®©

Annual Report 2025

GLA:D® is an evidence-based treatment program for people with osteoarthritis in the knee and hip, as well as persistent back pain. The programs are based on the latest research and combine patient education and exercise, with a focus on supporting participants' ability to self-manage.

GLA:D® was developed at University of Southern Denmark in collaboration between patients, clinicians, and researchers. Since its launch in 2013, more than 170,000 people have participated globally, and GLA:D® is now offered in more than 10 countries with over 11,000 affiliated clinicians.

In this report, we have compiled results from the Danish GLA:D® registries for 2025. The overall trends are described here, while more specific results can be found in the tables at the end of the report. You can also read about new research initiatives, current international collaborations, and gain insight into how GLA:D® continues to evolve and expand—both nationally and internationally.

Thank you for your interest—and enjoy reading!

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GLA:D® as a quality framework

GLA:D® as the basis for structured care pathways

The structure for implementing the GLA:D® programs has, since September 2025, been supported by a new reimbursement structure in the agreements for physiotherapy and chiropractic practice. This strengthens the organizational framework for delivering standardized, structured care pathways such as GLA:D®. It is important to emphasize that GLA:D® itself forms the foundation of these structured pathways, and that systematic data reporting is still required to maintain and further develop the quality of our work.

GLA:D® is structured programs that includes comprehensive clinician training, implementation support, exercise and patient education delivered to patients, as well as systematic data collection.

Experience from GLA:D® over more than a decade shows that clinician training, access to practical tools, and continuous monitoring are key elements in ensuring and improving quality in clinical practice.

Our experience also shows that standardization must be balanced with flexibility that allows necessary individual adaptations according to the needs of each patient and clinic. This flexibility is an integrated part of the GLA:D® programs, where the framework is standardized but allows room for clinical adaptation.

Many thousands of clinicians and patients have contributed data to the GLA:D® registries. That is why you can read about the positive results in this report and in many scientific publications. Structured care pathways under reimbursement agreements must also include systematic data collection, so that we continuously become wiser about who benefits most from the programs and where improvements are needed. It is therefore essential that data continue to be reported to the GLA:D® registries, as this is a central part of ensuring quality and ongoing development of the programs.



Photo: © GLA:D®

What is GLA:D®?



Photo: © GLA:D®

Content of GLA:D®



Patient education 2 × 1–1.5 hours



Supervised exercise in 6-8 weeks | 2 x per week

Access to GLA:D®



The patient can contact a GLA:D® unit directly



The patient can be referred by their general practitioner or a specialist doctor

Who is GLA:D® for?

GLA:D® Knee/Hip og GLA:D® Back are aimed at people with osteoarthritis in the knee or hip, respectively, and people with long-lasting or recurrent back pain.

GLA:D® consists of

- An initial consultation including examination, physical tests, assessment of training level, and registration in the database.
- Two education sessions covering osteoarthritis in the knee/hip or back problems, risk factors, causes of pain, the purpose of exercises, recommendations, and pain management, as well as individually tailored exercise twice a week.
- A final consultation with evaluation, re-testing, and a plan for the further course, for example maintaining exercise habits.

Access to GLA:D®

People with osteoarthritis in the knee/hip or back pain can access GLA:D® by:

- Contacting a GLA:D® clinic
- Referral from a general practitioner
- Referral from a specialist doctor

- Referral via an insurance company
- Municipal rehabilitation plan

Purpose of GLA:D®

GLA:D® supports the implementation of recommendations from clinical guidelines.

The overall purpose of GLA:D® Knee/Hip is:

- That all people with osteoarthritis, regardless of place of residence and financial situation, are offered patient education and exercise in accordance with clinical guidelines and current evidence
- That surgery is only considered when non-operative treatment does not provide satisfactory results

The overall purpose of GLA:D® Back is:

- That all people with back pain, regardless of place of residence and financial situation, are offered patient education and exercise based on clinical guidelines and current evidence
- That participants are able to manage their pain through exercise and increased knowledge about back pain

The spread of GLA:D®

Clinicians become GLA:D® certified through a 2-day course at University of Southern Denmark, and only certified clinicians are allowed to deliver GLA:D®. This ensures that the content of patient education and exercise is as consistent as possible across all providers of GLA:D®.

From 2013 to 2025, University of Southern Denmark conducted 31 courses aimed at treating people with osteoarthritis in the knee and hip, training a total of 1,947 clinicians. In the same period, from 2017 to 2025, 21 courses targeting treatment of people with back pain were held, training a total of 877 clinicians.

It is mainly physiotherapists who provide GLA:D® Knee/Hip. In GLA:D® Back chiropractors account for 11% of course participants.

In 2025, 240 units were actively delivering GLA:D® programs for people with osteoarthritis in the knee or hip. At the same time, 64 units were actively offering GLA:D® Back programs for people with back pain.

In 2025, 21 municipalities offered GLA:D® for knee and hip. Of these, 19 offered programs to citizens and 2 to staff. In addition, 5 municipalities offered GLA:D® Back.

Municipalities with GLA:D® in 2025

Osteoarthritis in knee/hip: Albertslund, Brønderslev, Fredensborg, Frederiksberg, Guldborgsund, Hedensted, Helsingør, Hillerød, Horsens, Høje-Taastrup, Jammerbugt, Copenhagen, Næstved, Roskilde, Stevns, Tårnby, Vallensbæk, and Vordingborg. In Assens and Kolding, the program is only offered for employees.

Back pain: Egedal, Hedensted, Jammerbugt, Kolding, Tårnby.

Participation in GLA:D®

Among people with osteoarthritis in the knee/hip, 85% participated in the two education sessions, and 80% attended at least 10 out of 12 exercise sessions.

Among people with back pain, about 72% participated in the two education sessions, and about 74% attended at least 10 out of 16 exercise sessions.

High satisfaction with GLA:D®

Around 8 out of 10 participants in GLA:D® report that they are highly or very highly satisfied with the program.



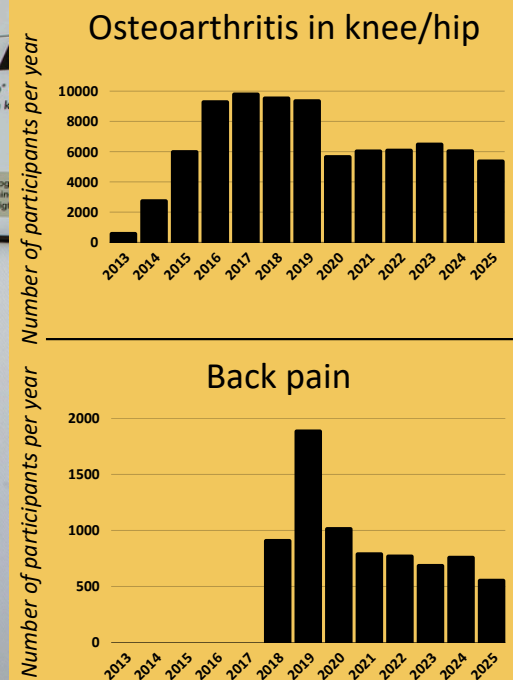
Units offering GLA:D® for knee-/hip

* Yellow and blue symbols indicate multiple units



Units offering GLA:D® Back

Who participates in GLA:D®?



GLA:D® Knee/Hip

More than 84,000 people with knee or hip osteoarthritis have participated in a GLA:D® program since its launch. From 2016 to 2019, around 10,000 people participated annually, while the annual number of participants from 2020 to 2025—after COVID-19—has decreased to approximately 6,000.

In 2025, the average age was 66 years, 69% of participants were women, and the majority had knee problems. 72% of participants primarily had knee problems and 28% primarily had hip problems, corresponding to the joint causing the most difficulty.

Among participants with knee osteoarthritis, 75% were overweight, while the proportion among those with hip osteoarthritis was 64%. The proportion with other conditions such as diabetes, osteoporosis, or metabolic, cardiovascular, or lung diseases was 66%, and 30% had back pain.

52% had experienced symptoms for more than one year at the start of the GLA:D® programme. Prior knee surgery was reported by 27% of participants with knee osteoarthritis, and 3% among those with hip osteoarthritis. The average pain level before the program was 4.8 (on a 0–10 pain scale), and around 65% used pain medication.

GLA:D® Back

By the end of 2025, 7,489 participants had been registered in GLA:D® Back. The average age was 58 years, and 65% of participants were women.

At the start of the program, 58% had experienced back pain for more than one year, and the average pain level was 5.6 (on a 0–10 pain scale).

Before GLA:D® Back, nearly 6 out of 10 participants had used pain medication, and almost 7 out of 10 had tried other treatments for their back.

GLA:D® clinical registries

Participants' outcomes from the GLA:D® program are monitored in clinical registries. Clinicians enter data at the beginning and end of the program. In addition, participants complete questionnaires at baseline, after 3 and 12 months, and at 6 months for people with back pain.





The registries enable continuous monitoring of the intervention and provide unique opportunities for research on treatment delivered in primary care.

Results — GLA:D® Knee/Hip



Photo: © GLA:D®

Results after the program

	Knee	Hip
Pain 	- 27 %	- 21 %
Medication 	- 29 %	- 24 %
Walking speed 	+ 7 %	+ 7 %
Quality of Life 	+ 13 %	+ 8 %

Reduced pain

After a GLA:D® program, the average pain intensity (0–10) decreased from 4.7 to 3.4 among participants with knee osteoarthritis (–27%) and to 3.7 among participants with hip osteoarthritis (–21%). The reduction was maintained one year after the start.

The proportion of participants with night pain decreased from 36% to 23% for knee osteoarthritis and from 51% to 38% for hip osteoarthritis.

Reduced use of medication

The proportion of participants who had taken pain medication within the past two weeks decreased immediately after a GLA:D® program from 62% to 49% for knee osteoarthritis (–29%). For hip osteoarthritis, this decreased from 68% to 52% (–24%). Regarding medication use, 41% of knee patients and 39% of hip patients reported reduced use compared to before the GLA:D® program. Similar were seen after one year.

Improved physical function

Participants' physical function improved immediately after a GLA:D® program. Walking speed increased on average by 7%—from 1.5 meters per second before the program to 1.6 meters per second after.

Physical function, measured by the number of sit-to-stand repetitions in 30 seconds, increased from 12 to 14 repetitions (17%). Around 10% completed a single-leg hop test. The average hop distance increased from 34 to 51 cm (50%) for knee patients. For hip patients, it increased from 39 to 51 cm (31%).

Improved quality of life

Average quality of life improved immediately after a GLA:D® program. For participants with knee osteoarthritis, quality of life increased by 13% (from 46 to 52 measured by KOOS QOL), and for participants with hip osteoarthritis by 8% (from 48 to 52 measured by HOOS QOL). One year after the start, there was an overall improvement of around 20% for both knee and hip patients compared to before the program.

Fewer sick leaves

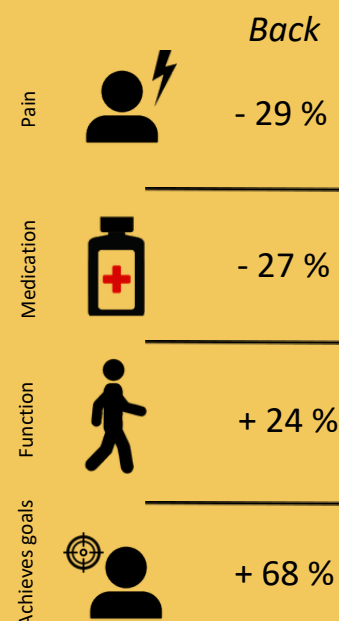
The proportion of patients with knee or hip osteoarthritis who had been on sick leave during the past year decreased. Among knee osteoarthritis patients, this proportion dropped from 9% to 6%, and for hip osteoarthritis patients from 6% to 5% (Individuals who underwent surgery are excluded.).

Results — GLA:D® Back



Photo: © GLA:D®

Results after the program



Reduced pain

The average back pain intensity decreased by 29% (from 5.6 to 4.0 on a 0–10 pain scale) immediately after the GLA:D® program. One year after start, the reduction in pain was maintained.

Reduced use of medication

Immediately after the GLA:D® program, the proportion of participants using pain medication for back pain decreased by 27% (from 59% to 43%). This level was maintained one year after the start of the program.

Improved physical function

Physical function, measured by the number of sit-to-stand repetitions in 30 seconds, improved from 12 to 15 repetitions (25%). Likewise, functional level measured by the Oswestry Disability Index improved by 24% (from a score of 25 to 19). Endurance of the abdominal and back muscles improved by 47% and 45%, respectively.

Less fear of physical activity

After the program, participants reported fewer worries and less fear of pain related to physical activity, with an average reduction of 21% (from 9.4 to 7.4 on a 0–24 Fear Avoidance scale).

Fewer sick days

The average number of sick days in the past three months due to back pain decreased from 6.3 days before starting to 1.2 days immediately after the program. One year after start, this had further decreased to 0.8 days.

Many achieve their personal goals

At the end of the program, 68% of participants reported that they had partially or fully achieved their goals. Of these, 20% reported having fully achieved their goals.

Improved quality of life and general health

Participants' self-rated health increased by an average of 9% (from 62.3 to 68.2 on a 0–100 scale) immediately after the GLA:D® program. This improvement continued, with overall quality of life increasing by 11% one year after start.

New research in GLA:D®



Photo: © GLA:D®

Research

- Use of healthcare services
- Use of pain medication
- Improvements in knee osteoarthritis
- Pain and self-efficacy
- Fear of falling

GLA:D® Ryg kan reducere sundhedsydelsler

Can participation in GLA:D® Back reduce the use of healthcare services? A recent study showed that patients in GLA:D® Back reduced their use of healthcare services among patients with back pain. Participants had fewer visits to their general practitioner, physiotherapist, and chiropractor, and used less pain medication, especially among those with long-lasting back pain or high initial healthcare use. You can read more in the research article: [Link to the paper](#).

GLA:D® Back can reduce use of pain medication

Participation in a GLA:D® Back program can reduce the use of pain medication. The reduction is greatest in patients who increased their belief in their ability to manage back pain. You can read more in the [research article](#).

GLA:D® can also be used in patients with early signs of osteoarthritis

A study from GLA:D® Knæ/Hofte Knee/Hip shows that people with early knee osteoarthritis experienced improvements in pain, quality of life, and function comparable to those with established osteoarthritis, both three and twelve months after participating in a GLA:D® program. Find the paper [here](#).

Do multiple pain areas reduce self-efficacy?

Patients with knee osteoarthritis who have pain in multiple body regions typically have lower self-efficacy as well as higher levels of anxiety and depression. In contrast, kinesiophobia (fear of movement) was lower in patients with more pain areas. [Link to the paper](#).

Fear of falling in people with osteoarthritis






Fear of falling is common among people with knee and hip osteoarthritis, especially among older adults and women. People with such concerns typically experience more pain, lower functional ability, and greater fear of movement. The findings highlight the importance of assessing and addressing fear of falling as part of treatment and exercise in people with knee and hip osteoarthritis. You can find the research article [here](#).

Find other research articles in GLA:D®








You can find full lists of articles for GLA:D® here: [GLA:D® knee-/hip](#) and [GLA:D® Back](#).

Overview table – GLA:D®

GLA:D® Knee/Hip

		<i>Knee</i>	<i>Hip</i>
Pain 		- 27 %	- 21 %
Medication 		- 29 %	- 24 %
Walking speed* 		+ 7 %	+ 7 %
Sick leave* 		- 44 %	- 33 %
Quality of Life 		+ 20 %	+ 20 %

GLA:D® Back

Pain 	- 29 %
Medication 	- 29 %
Function* 	+ 24 %
Achieving goals* 	+ 68 %
Sick leave 	- 87 %
Fear* 	- 21 %
Quality of Life 	+ 11 %

The figures show the average relative percentage change from baseline to one year after a GLA:D® programme. Results marked with “*” show the change from baseline to the end of the programme. All results cover the period up to and including 2025.

For pain medication, the figures show the change in the proportion of participants using medication.

GLA:D® Internationally

GIN: GLA:D® International Network




GLA:D® targeted at knee/hip osteoarthritis is offered to patients in Denmark (2013), Canada (2015), Australia (2016), China (2017), New Zealand (2019), Switzerland (2019), Austria (2020), Germany (2021), Ireland (2021), the Netherlands (2023), and Finland (2025). In addition, GLA:D® Knee/Hip has been tested in Nigeria.

GLA:D® Back is offered in Denmark (2018), Norway (2020), Australia (2020), Canada (2021), and Switzerland (2021).

National GLA:D® initiatives are generally anchored in academic centres at universities in collaboration with local healthcare providers, and in Germany, for example, there is collaboration with insurance companies.

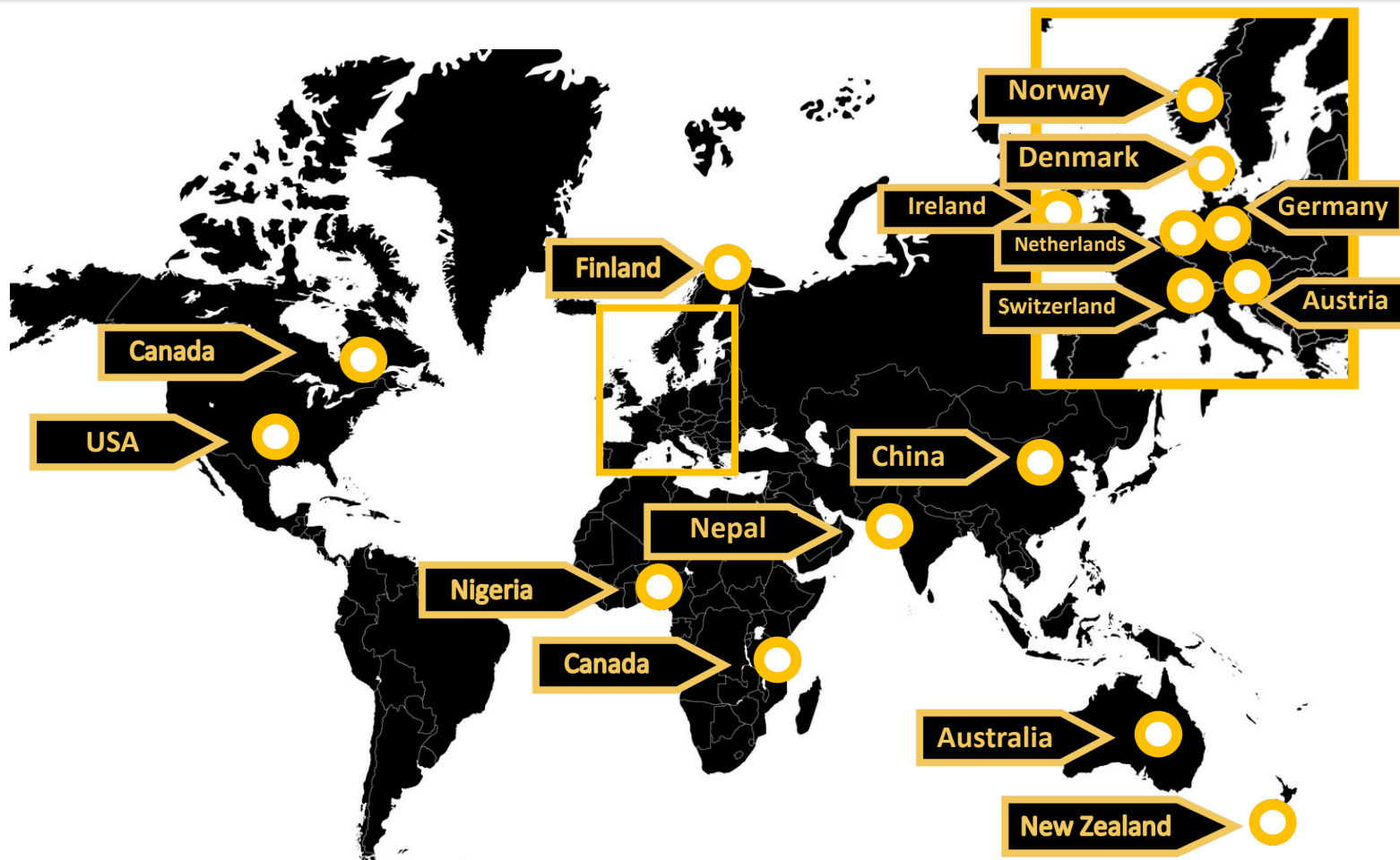
To promote international collaboration, the *GLA:D International Network* (GIN) has been established. GIN is a collaborative organisation aimed at ensuring

GLA:D® Internationally - 2025

	<i>Knee/hip osteoarthritis</i>	<i>Back</i>
	173.800 participants	10.600 participants
	11.600 clinicians	2.000 clinicians
	2.050 clinics	233 clinics

consistency in GLA:D® materials, messages, and training, as well as promoting collaboration in research and development. The network meets twice a year to present new research and discuss new initiatives and workshops. Once a year, the meeting takes place alongside the annual OARSI conference, and the other meeting is held online.

See more about GIN here: www.gladinternational.org.







Contact: glaidsupport@sdu.dk (knee/hip) eller gladryg@sdu.dk (back)

GLA:D® website: www.gladdanmark.dk

Shared international website under development: www.gladinternational.org



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