

ANNUAL REPORT FOR 2024



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EDITORIAL

About 1 in 5 Australians over the age of 45 have osteoarthritis. The GLA:D® program aims to improve the care of people with knee and hip osteoarthritis through education and exercise therapy, as recommended by international treatment guidelines. GLA:D® was originally launched in Denmark in 2013 and its implementation began in Australia in 2017.

The 2024 Annual Report presents an overview of the GLA:D® Australia program and reports the results from our data registry. The data were obtained from GLA:D® Australia participants for the period of January 2018 to December 2024.

GLA:D® Australia Team



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WHAT IS GLA:D®?

All major international guidelines recommend patient education and exercise as the first choice of treatment – combined with weight reduction, if necessary. GLA:D®, Good Life with osteoarthritis from Denmark, is an education and exercise program developed by researchers in Denmark for people with knee or hip osteoarthritis symptoms.

GLA:D® education and exercises can be applied to everyday activities, ensuring participants develop skills to self-manage their osteoarthritis. By strengthening and improving confidence with exercise, participants increase their capacity to become or stay active, prevent symptom progression and reduce pain.

GLA:D® aims to accelerate implementation of national clinical guidelines around the world into clinical practice, and the overall objective is to ensure that:

1. All people with osteoarthritis have equal access to evidence-based treatment irrespective of place of residence or financial situation; and
2. Surgery is considered only when non-surgical treatment measures have not led to satisfactory outcomes

In line with the original Danish program, GLA:D® Australia consists of three core elements:

1) Clinician education, training and support

GLA:D® Australia education and training workshops involve:

- ✓ Pre- and post-workshop knowledge testing
- ✓ Interactive learning sessions related to osteoarthritis management
- ✓ Practical sessions to train patient education and exercise prescription skills
- ✓ Group discussions about overcoming barriers to implementation

2) GLA:D® Australia intervention delivery

All registered participants receive a standardised but individualised program based on need and goals:

- ✓ 2 participant education sessions
- ✓ 12 sessions of supervised group exercise therapy delivered twice weekly for six weeks

3) Data collection of patient outcomes

All program participants are registered into an online participant data registry, with an 'opt out' consent process for contributing to collection of participant-reported data



GLA:D® is available in all states of Australia!

The first GLA:D® Australia Clinician training course was delivered in March 2017, with **46** courses held around Australia since this time by December 2024.

**3334 Physiotherapists and
Accredited Exercise Physiologists
trained from all states and territories**

Up until December 2024 **1534 clinicians have completed certification/recertification** so that they can provide the full GLA:D® program in their clinic. Please check the monthly updated list on our website: www.gladaustralia.com.au

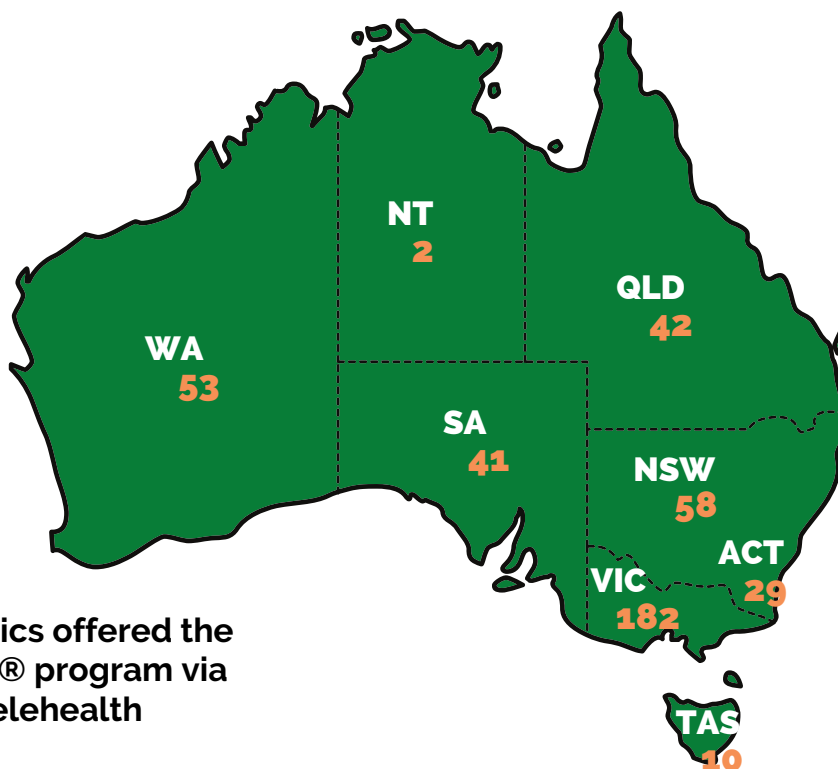
From the 944 sites registered in the GLA:D® Australia database, **417 sites** are delivering the program to the community. Including **96 sites in rural/regional areas (23%)**, **310 in urban/suburban areas (74%)**, and **11 unknown (3%)**. Their names are listed on the GLA:D® Australia website. The map below indicates the number of sites providing the GLA:D® program in each state/territory:

In 2024 332 clinicians were trained

Physiotherapists 278 (84%)

Accredited Exercise Physiologist 51 (15%)

Physio & AEP 3 (1%)



**88 clinics offered the
GLA:D® program via
telehealth**

GLA:D® AUSTRALIA PARTICIPANTS: WHO ARE THEY?

Number of participants

Between January 2018 and December 2024, **22395** participants were registered in the GLA:D® program from all Australian states and territories (4410 only in 2024).

81% reported their knee as their primary problem joint

19% reported their hip as their primary problem joint

Characteristics

A total of **71%** of the GLA:D® participants were **women**.

The average age for all participants was **66 years**, with the youngest being an 18 year-old man and the oldest being a 95 year-old woman. Knee participants had an average BMI of 30.3kg/m² and hip participants of 28.5kg/m².


77% of the GLA:D participants were born in Australia. **1%** of all participants are Aboriginal and/or Torres Strait Islander.

Comorbidities

84% of the knee participants and **84%** of the hip participants had **other conditions**. The most common conditions were back pain (39%) and high blood pressure (33%).


Symptoms

 **6 in 7 participants** present **joint stiffness** first thing in the morning.

 **72% of the knee** and **32% of the hip** participants experienced **crepitus, clicking or grinding** in their joint.

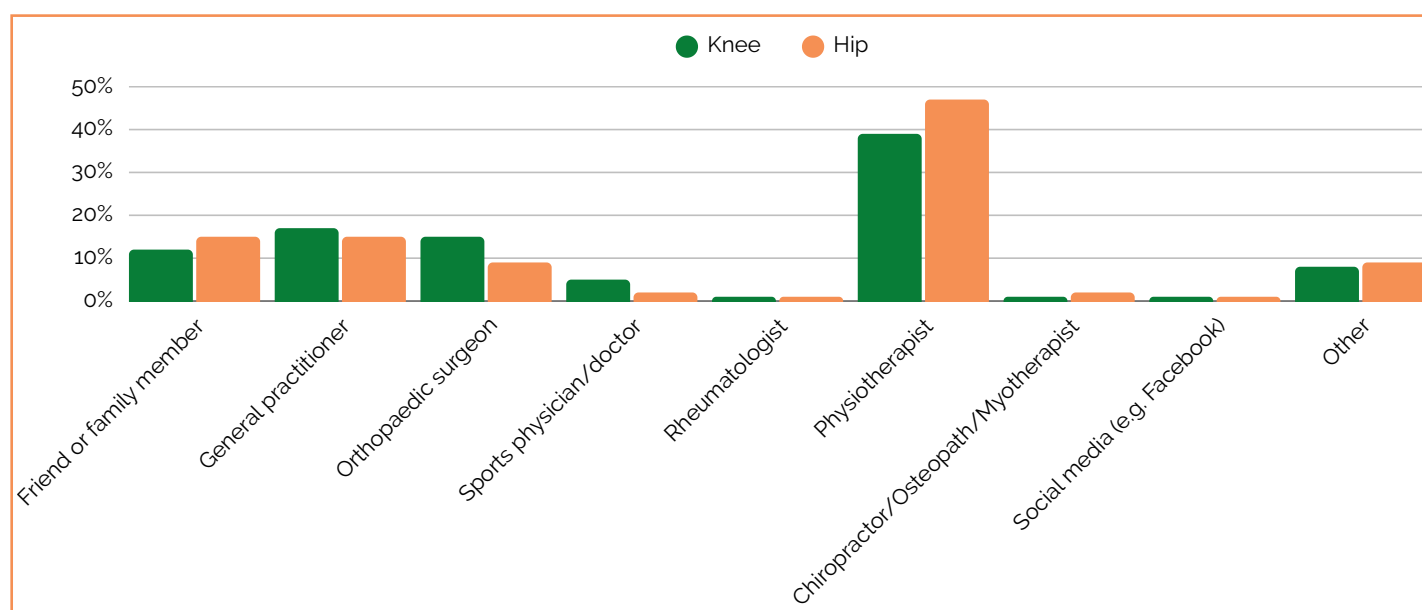
88% of the knee participants and **91% of the hip participants** reported **reduced joint movement**.

Family history

 **54%** of all participants had a family member diagnosed with osteoarthritis. 26% did not know.

GLA:D® Referral

In 2024, 2693 were referred to GLA:D® by a variety of different health professionals, family members and friends. The other most common source of information about the GLA:D® Program was searching on internet (14%)



GLA:D® AUSTRALIA PARTICIPANTS: 3 MONTHS RESULTS

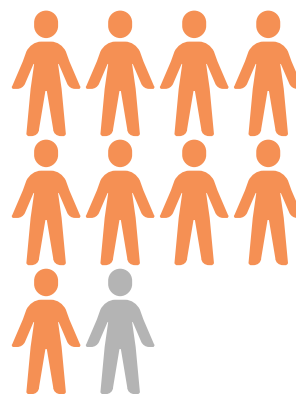
Reduced Pain

After the GLA:D® program, the average **knee/hip pain intensity decreased** by **29%** (from 45 to 32 mm on VAS (visual analogue scale) 0-100) for knee participants and **23%** (from 44 to 34 on VAS 0-100) for hip participants.

Reduced intake of painkillers

After the GLA:D® program, **47%** of the knee participants and **43%** of the hip participants reported that **they are using less or much less medication**, such as paracetamol, NSAIDs (non-steroidal anti-inflammatory drugs) or opioids.

	KNEE	HIP
Pain	- 29%	- 23%
Medication	- 47%	- 43%
Quality of life	+ 26%	+ 17%
Walking speed	+ 13%	+ 12%



In 2024, **90%** participants attended at least 1 education session and 10 exercise-therapy sessions



90% of the participants were **satisfied or very satisfied** with the GLA:D® Program

91% of the participants use what they have learned in GLA:D® at **least once a week**

Higher quality of life

After the GLA:D® program, average joint-related **quality of life increased** by **26%** for knee participants (KOOS (Knee injury and Osteoarthritis Outcome Score) QoL from 42 to 53) and **17%** for hip participants (HOOS (Hip disability and Osteoarthritis Outcome Score) QoL from 46 to 54).

Improved physical function

For both knee and hip participants, the **number of sit to stands** in 30 seconds **increased by 27%** from 11 repetitions before GLA:D® to 14 repetitions after GLA:D® program.

After the GLA:D® program, the average **walking speed increased** by **13%** (from 1.47 m/sec to 1.67 m/sec) for knee participants and **12%** (from 1.47 m/sec to 1.65 m/sec) for hip participants.

GLA:D® AUSTRALIA PARTICIPANTS: 12 MONTHS RESULTS

Reduced Pain

The knee participants experienced an **average pain reduction** of **29%** (from 45 to 32 mm on VAS 0-100) and the hip participants an average pain reduction of **25%** (from 44 to 33 on VAS 0-100) compared with before GLA:D® program.

Reduced intake of painkillers

One year after starting the GLA:D® program, **52%** of the knee participants and **46%** of the hip participants reported that **they are using less or much less medication**, such as paracetamol, NSAID or opioids.

Higher quality of life

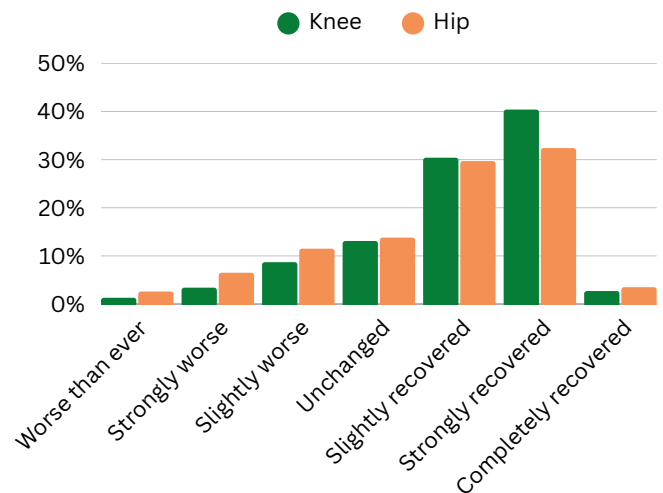
One year after starting the GLA:D® program, participants reported a further **improvement in average joint-related quality of life**. Knee participants reported a **36%** improvement (KOOS QoL from 42 to 57) and hip participants a **24%** improvement (HOOS QoL from 46 to 57) compared with before GLA:D® program.

	KNEE	HIP
Pain	- 29%	- 25%
Medication	- 52%	- 46%
Quality of life	+ 36%	+ 24%
Physical activity participation	+ 13%	+ 10%

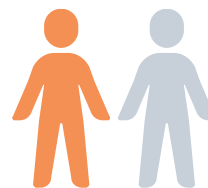
Physical activity participation

One year after commencing the GLA:D® program, the number of knee participants undertaking **regular physical activity of at least moderate intensity increased 13%** (UCLA physical activity scale from 53% to 66%) and the number of hip participants increased **10%** (UCLA physical activity scale from 52% to 62%).

72% of all participants rated themselves as at least slightly recovered one year after starting the GLA:D® program

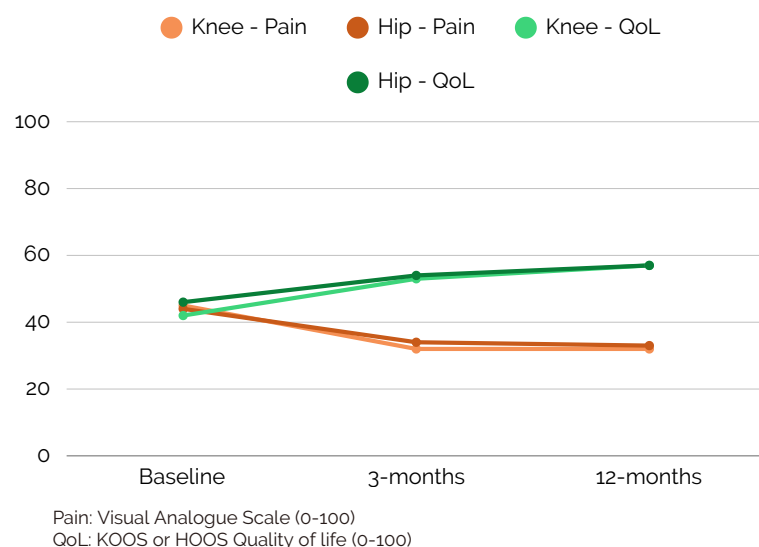


Joint replacement surgery



About 1 in 2 participants who desired surgery at baseline **had not received surgery and no longer desired surgery** one year after starting the GLA:D® program.

Improvement in pain and quality of life 3- and 12-months following GLA:D®



FINAL WORDS

Interpretation of results

The analyses included in this Annual Report are entirely descriptive and the results should be interpreted with caution. The data are based on validated questionnaires completed in English, objective functional tests and other questions whose validity has not yet been examined. We have strived to achieve the highest degree of validity in data collection in a real world clinical practice setting.

To rule out competing causal factors, the analyses have been done excluding patients who have had joint replacement surgery during the follow-up period. Consequently, the most obvious competing causal factor has been taken into account. The analyses do not involve a control group, and therefore it is possible that factors other than the GLA:D® program may have affected the results.

The majority of GLA:D® participants are people who are able and willing to pay at least some of the cost for the program in a private clinic, and who are able to attend appointments at a physiotherapy service. Consequently, it cannot be ruled out that the composition of the participant population may have affected the results. Overall, the generalisability of the results seems acceptable in relation to knee and hip osteoarthritis participants who are able and motivated to participate in GLA:D® Australia. However, the above limitations must be considered when interpreting the results of this Annual Report.

International collaboration in GLA:D®

GLA:D® has been implemented in 9 countries.

Teams from all countries are a part of the GLA:D® International Network (GIN). The aims of the network are to share experiences and to ensure standardisation and homogeneity in delivering GLA:D® in the different countries.

A common website was established in 2019:
www.gladinternational.org

GLA:D® International Network

2013: GLA:D® Denmark

2015: GLA:D® Canada

2017: GLA:D® Australia

2017: GLA:D® China

2019: GLA:D® Switzerland

2019: GLA:D® New Zealand

2020: GLA:D® Austria

2021: GLA:D® Germany

2021: GLA:D® Ireland

2023: GLA:D® Netherlands

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