

KIESER

PHYSIO | REHAB | STRENGTH

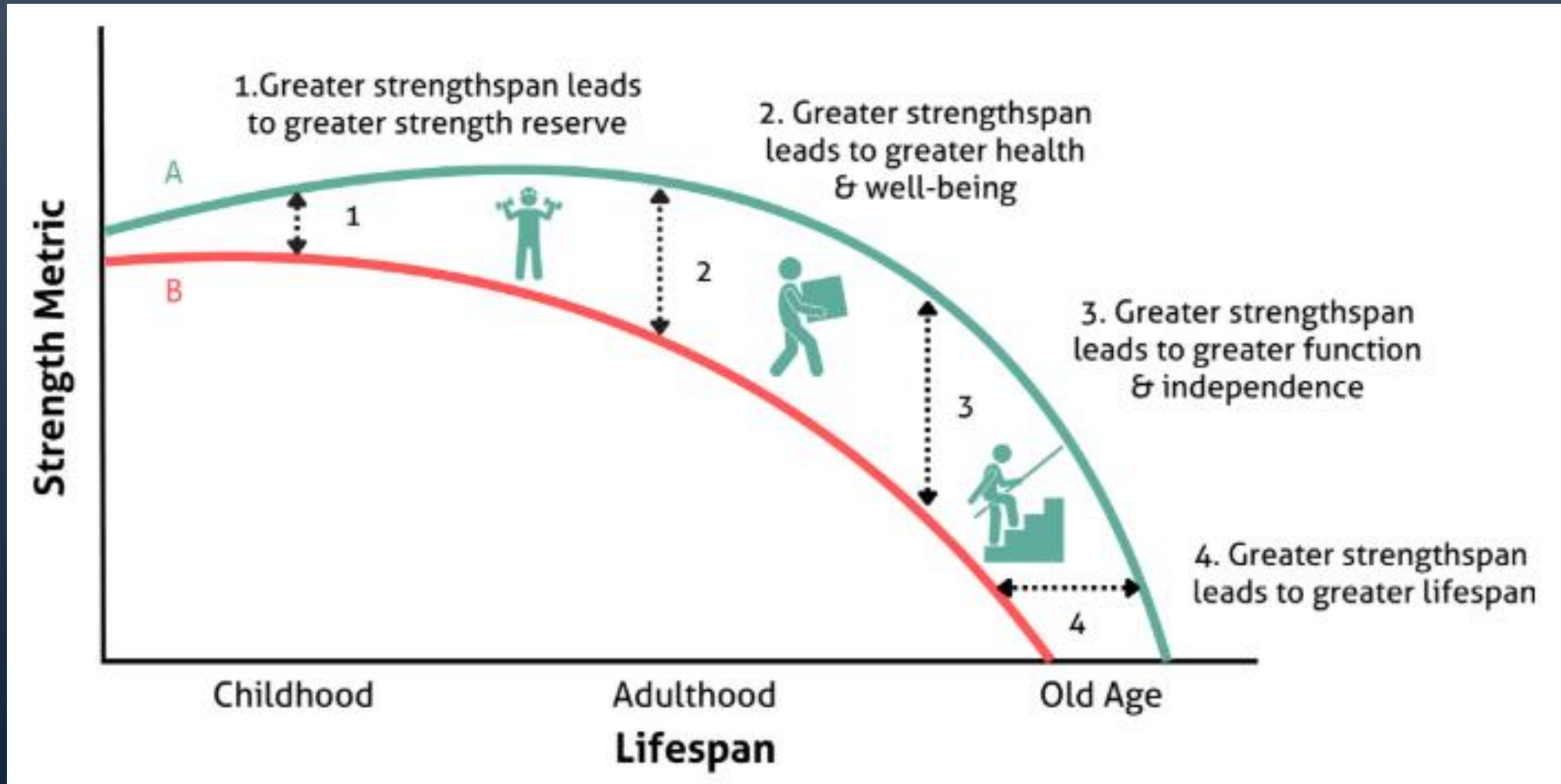
Strengthspan

David Adamo & Kane Chisholm

Benefits of Strength Training

- Reduces risk of falls
- Improves ability to perform ADL's
- Reduces risk of cardiac disease
- Reduces risk of metabolic disease
- Reduces risk of respiratory disease
- Is associated with cognitive improvement
- Reduces mobility disorders
- Maintains functional independence

Lifespan vs Strengthspan



Assessing Functional Strength – Chair Stands

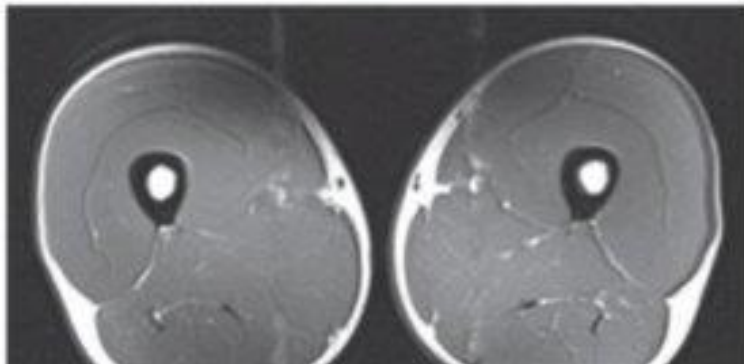
Percentile rank	60-64	65-69	70-74	75-79	80-84	85-89	90-94
95	23	23	21	21	19	19	16
90	22	21	20	20	17	17	15
85	21	20	19	18	16	16	14
80	20	19	18	18	16	15	13
75	19	18	17	17	15	14	12
70	19	18	17	16	14	13	12
65	18	17	16	16	14	13	11
60	17	16	16	15	13	12	11
55	17	16	15	15	13	12	10
50	16	15	14	14	12	11	10
45	16	15	14	13	12	11	9
40	15	14	13	13	11	10	9
35	15	13	13	12	11	9	8
30	14	13	12	12	10	9	8
25	14	12	12	11	10	8	7
20	13	11	11	10	9	7	7
15	12	11	10	10	8	6	6
10	11	9	9	8	7	5	5
5	9	8	8	7	6	4	3

Normative data:

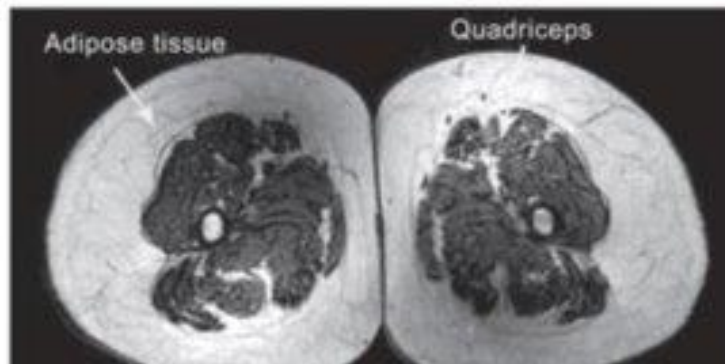
Table 1. Normative data for females aged 60-94 years

Percentile rank	Age (years)						
	60-64	65-69	70-74	75-79	80-84	85-89	90-94
95	21	19	19	19	18	17	16
90	20	18	18	17	17	15	15
85	19	17	17	16	16	14	13
80	18	16	16	16	15	14	12
75	17	16	15	15	14	13	11
70	17	15	15	14	13	12	11
65	16	15	14	14	13	12	10
60	16	14	14	13	12	11	9
55	15	14	13	13	12	11	9
50	15	14	13	12	11	10	8
45	14	13	12	12	11	10	7
40	14	13	12	12	10	9	7
35	13	12	11	11	10	9	6
30	12	12	11	11	9	8	5
25	12	11	10	10	9	8	4
20	11	11	10	9	8	7	4
15	10	10	9	9	7	6	3
10	9	9	8	8	6	5	1
5	8	8	7	6	4	4	0

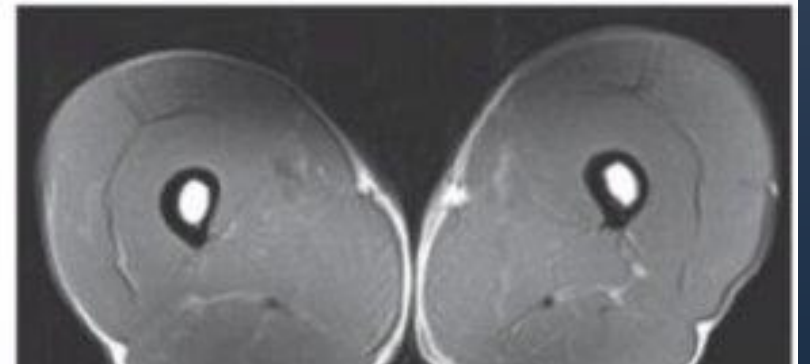
40-year-old triathlete



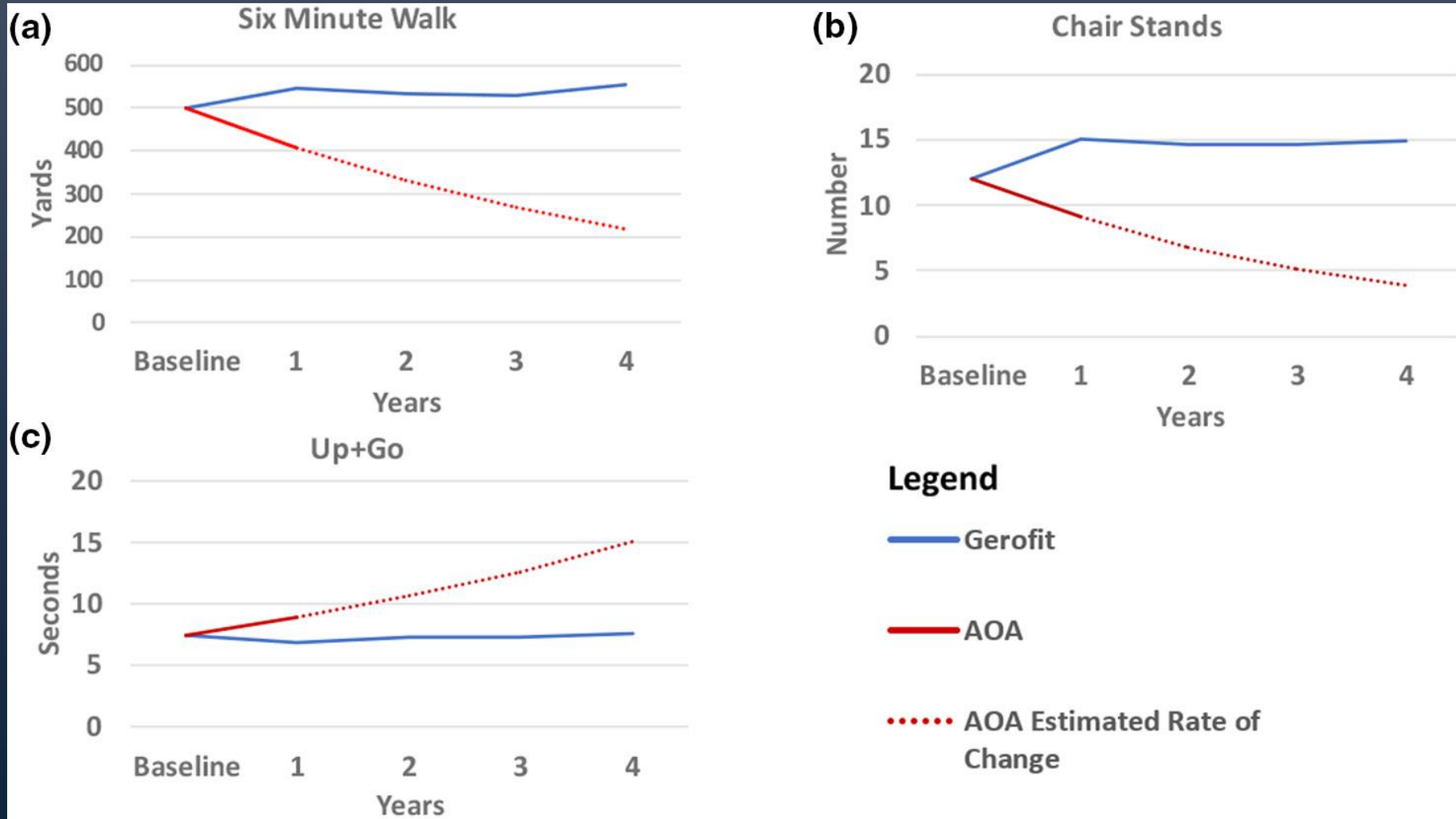
74-year-old sedentary man



74-year-old triathlete



Functional Outcomes



Assessing Functional Strength – Grip Strength

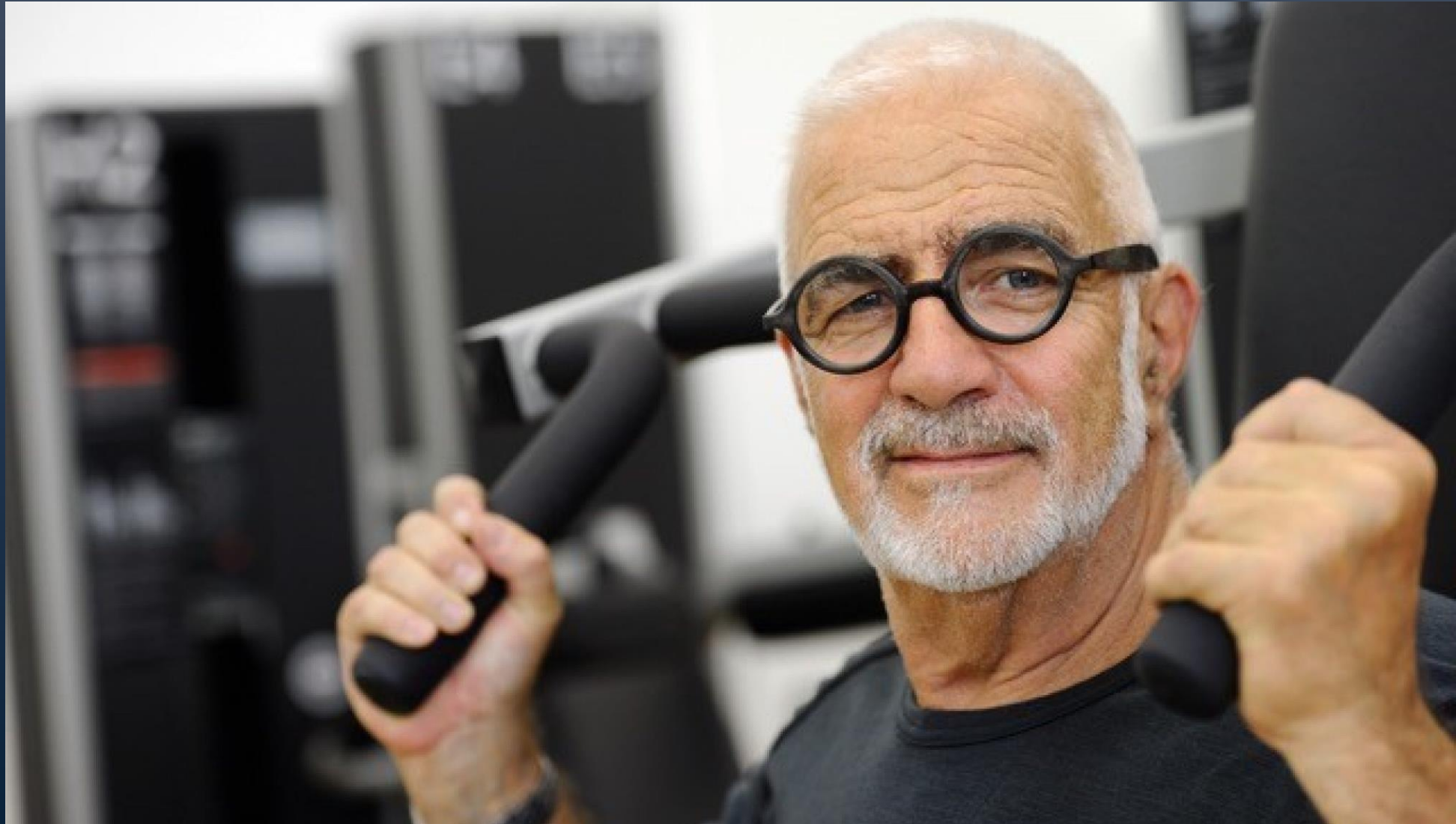
TABLE 1

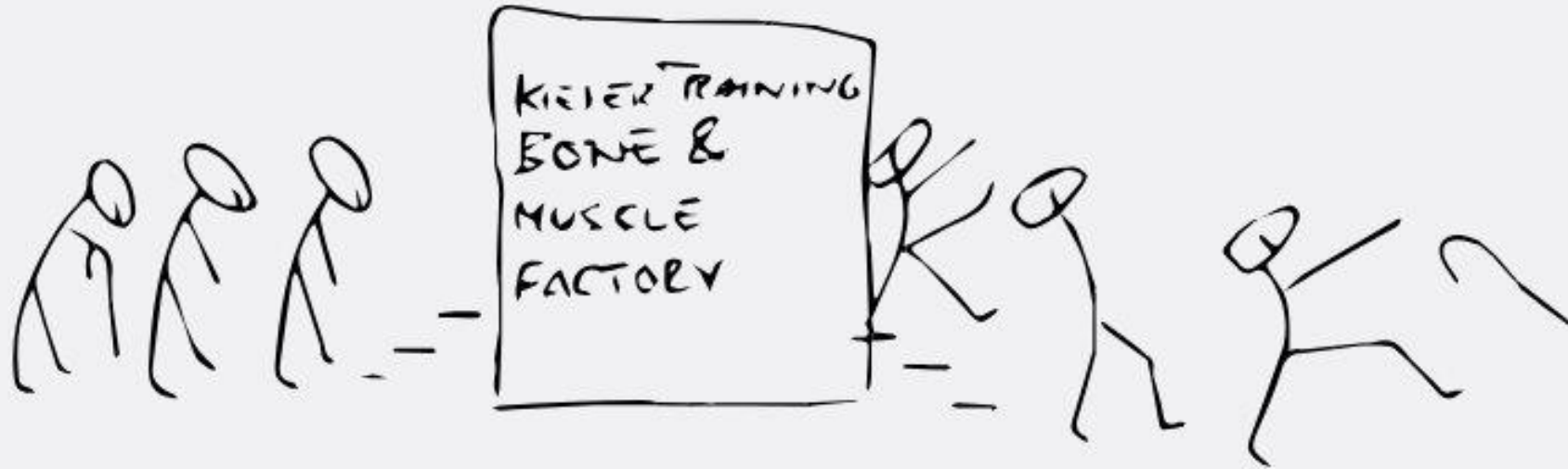
**SUMMARY OF HAND-GRIP STRENGTH MEASUREMENTS
BY SIDE, SEX, AND AGE-GROUP STRATA***

Hand/Sex/Age, y	Height, m	Weight, kg	Strength, kg	Percentile				
				10	25	50	75	90
Dominant								
Male								
40-44 (n = 47)	1.75 ± 0.07	90.0 ± 19.6	46.7 ± 11.7	34.3	39.9	45.9	54.4	63.1
45-49 (n = 32)	1.73 ± 0.06	89.1 ± 17.9	42.8 ± 10.9	31.1	35.8	40.7	48.2	59.2
50-54 (n = 46)	1.78 ± 0.08	93.8 ± 17.2	44.0 ± 10.3	30.4	39.0	44.8	52.3	56.7
55-59 (n = 27)	1.77 ± 0.08	92.3 ± 22.4	40.7 ± 10.4	28.2	32.4	38.7	47.8	56.3
60-64 (n = 33)	1.77 ± 0.08	90.3 ± 13.4	38.4 ± 10.3	23.3	30.4	40.3	44.9	52.5
65-69 (n = 22)	1.74 ± 0.08	86.2 ± 17.9	36.8 ± 10.5	17.8	31.5	36.6	45.8	50.1
70-74 (n = 39)	1.75 ± 0.08	88.3 ± 18.0	34.7 ± 9.0	16.7	29.3	36.3	41.2	45.6
75-79 (n = 24)	1.76 ± 0.08	86.2 ± 14.0	32.7 ± 10.1	18.4	25.9	33.5	36.6	43.5
80-85 (n = 38)	1.75 ± 0.08	81.1 ± 13.0	28.1 ± 9.1	15.6	21.5	29.5	34.6	38.2
Female								
40-44 (n = 88)	1.63 ± 0.07	75.9 ± 18.4	29.9 ± 6.2	22.8	26.5	30.4	33.8	37.4
45-49 (n = 52)	1.63 ± 0.08	79.7 ± 19.1	28.8 ± 7.2	17.7	25.2	28.7	34.4	37.6
50-54 (n = 65)	1.63 ± 0.07	75.6 ± 16.0	28.2 ± 6.3	19.7	24.6	28.2	32.7	35.2
55-59 (n = 30)	1.62 ± 0.07	76.6 ± 16.2	25.1 ± 6.2	16.9	20.7	24.1	30.2	32.2
60-64 (n = 58)	1.62 ± 0.07	76.7 ± 17.4	23.6 ± 6.5	15.9	19.2	24.4	28.1	31.8
65-69 (n = 29)	1.62 ± 0.07	80.0 ± 21.5	22.1 ± 6.6	11.7	19.3	22.2	25.0	31.2
70-74 (n = 43)	1.60 ± 0.07	77.4 ± 18.8	21.5 ± 5.1	15.2	19.5	22.5	23.9	27.5
75-79 (n = 17)	1.58 ± 0.08	66.7 ± 10.4	19.6 ± 6.0	12.6	15.7	18.2	22.4	27.8
80-85 (n = 46)	1.60 ± 0.06	70.0 ± 11.3	19.9 ± 4.4	14.5	16.6	19.5	21.8	27.0

Table continues on page 689.

Our History





Graphic: Werner Kieser illustration "Muscle and bone factory"

"A strong body is a pre-requisite for an active, pain-free and healthy life"



**OUR MISSION
BUILDING A STRONGER AUSTRALIA**

KIESER

BE STRONG, STAY STRONG

Our Facility



Our Staff

Collaborative approach. University Trained. Equipped to prescribe exercise to all age groups and health levels.

Physiotherapists:

- Spinal Conditions
- Pre-/Post Surgery
- Osteoarthritis
- Hip Pain
- Knee Pain
- Shoulder Pain
- Neck Pain

Exercise Physiologists:

- Cancer
- Diabetes
- Osteoporosis
- Heart Disease
- High Blood Pressure

Exercise Scientists:

- Technique
- Intensity
- Programming
- Athletic Performance

Our Clients



670 members

- Youngest: 13 years old
- Oldest: 91 years old

Community



A typical pathway

1x Hour Assessment with a Physiotherapist or Exercise Physiologist

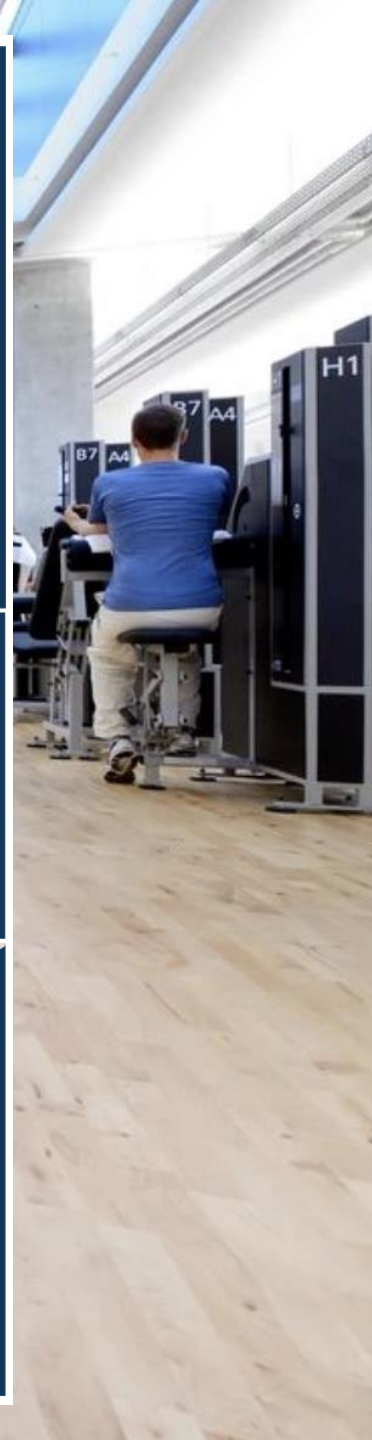
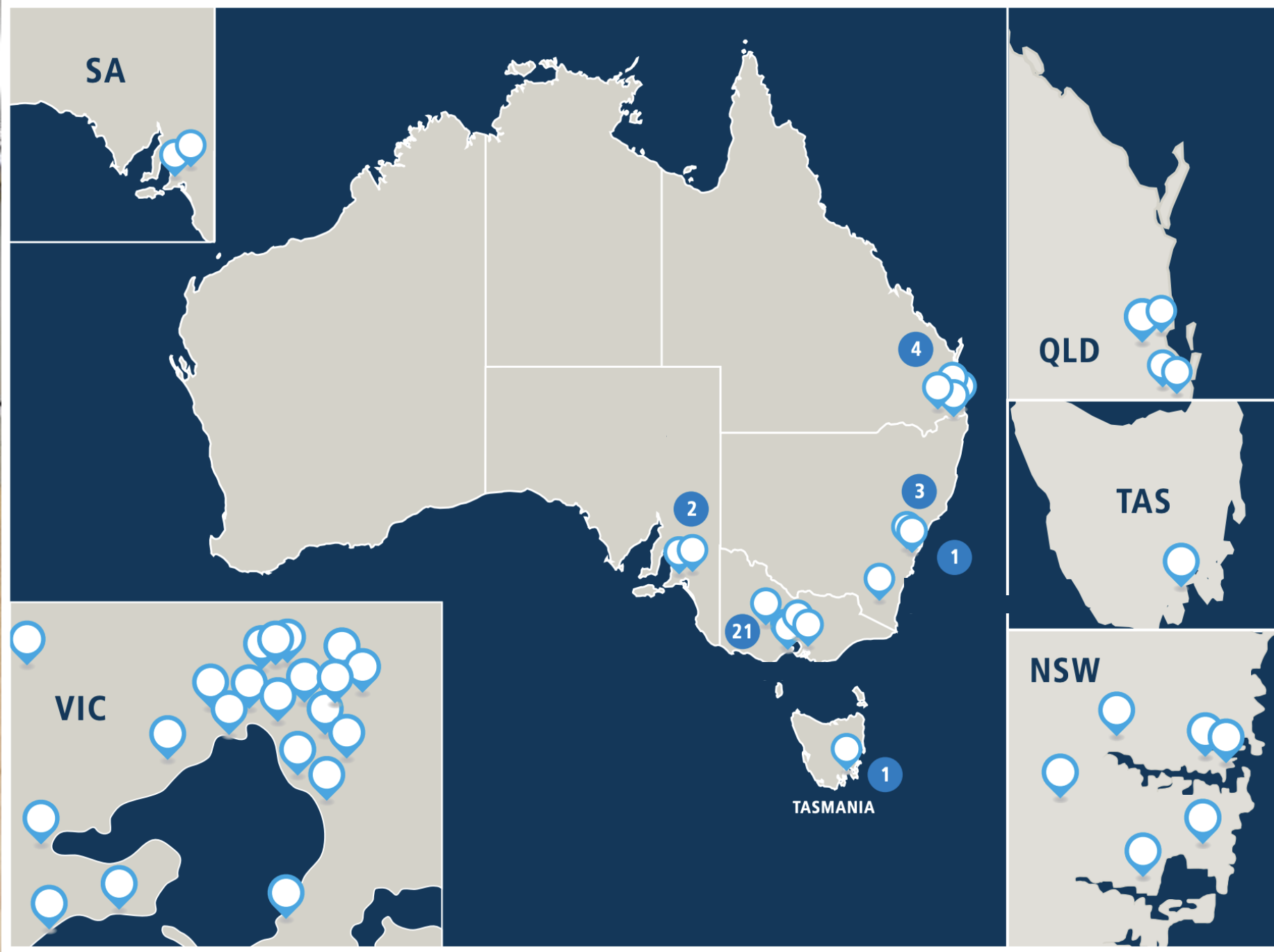
6x 1 on 1 sessions with an Exercise Scientist

Train under supervision of an Exercise Scientist or train independently

Regular touch points with our staff to adjust your program

Our Location: 106 Bundall Road, Bundall





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PHYSIOTHERAPY
REHABILITATION
STRENGTH TRAINING

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PHYSIOTHERAPY
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* Kieser Hip and Knee Osteoarthritis Program only.

KIESER

PHYSIOTHERAPY
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STRENGTH TRAINING



Funded programs for hip, knee & spine for eligible patients.

Please complete program referral form and email to adam.lincoln@kieser.com.au