



MOON RUNNERS

THE ALTER G ANTI GRAVITY TREADMILL

NASA technology right here in Sydney

The AlterG anti-gravity treadmill was designed to change the weight of users through differential air pressure, a technique developed by NASA for their astronauts to exercise and maintain conditioning in space. Once only available to professional and elite athletes, this space age treatment is now available to the general public at Moon Runners.

✓ FAST TRACK YOUR REHAB

The AlterG's unique unweighting technology allows you to select any weight between 20% and 100% of your body weight by 1% increments.

While under the anti-gravity effect, experience reduced stress on joints and injured areas of your lower body. Run and walk longer and recover faster with less pain.

It can be used for spinal and lower limb surgical procedures such as hip and knee replacements, ACL reconstructions, knee arthroscopy microfractures and ankle arthroscopies. Injuries that can be treated on the Alter G include metatarsal stress fractures, chronic patellofemoral pain, complex regional pain syndrome, fibula stress fractures, lumbar disc herniation, non-surgical knee osteoarthritis, plantar fascia tears, ankle sprains, tibial stress fractures and navicular stress fractures.

✓ TRAIN LIKE THE PROS

The AlterG is used by many professional sporting teams in Australia and around the world.

Locally, the AlterG has been instrumental in the success of the Sydney Swans in the AFL for the past decade while successful NRL teams such as the Manly Sea Eagles, South Sydney Rabbitohs and Canterbury Bulldogs have ready access to the AlterG in their respective training facilities. It is also used by the Australian Institute of Sport.

Internationally, the AlterG is used by many teams in the USA (NBA, NFL, MLB) and Europe (English Premier League, La Liga, Serie A).

For more information, visit www.moonrunners.com.au



info@moonrunners.com.au



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The Sports Physio Clinic Narrabeen
Sydney Academy of Sport
Wakehurst Parkway
Narrabeen NSW 2101

Ph: 02 9981 4099

Sydney Gymnastic and Aquatic Centre
Rooty Hill RSL Club Complex
12 North Parade
Rooty Hill NSW 2766

Ph: 02 9851 5959



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ALTERG ANTI GRAVITY TREADMILL DETAILS

The P200 Anti-Gravity Treadmill available at Narrabeen & Rooty Hill is the top of the line model used by professional athletes around the world.

Unweighting range:

20% to 100% in 1% increments.

User weight range:

Minimum: 39kg Maximum: 181kg

Speed and elevation range:

Forward: 0 - 29 km/hr Reverse: 0 - 16 km/hr

Elevation: 0 - 15% grade

Video Monitoring System:

- 1 front-mounted permanent camera
- 2 side cameras, mounted on a stand, which can be freely positioned.

BRUCE PROTOCOL STAGES : HEART RATE (HR) AND RATED PERCEIVED EXERTION (RPE)

HR (bpm)	100%BW	90%BW	80%BW	p
Rest	80 ± 10	83 ± 13	83 ± 13	0.77
Stage 1	104±11	103±11	98 ± 12	0.40
Stage 2	122±17	118±14	112 ± 17	0.35
Stage 3	145±18	131±10	127 ± 19	0.07
Stage 4	164±17	153±14	148 ± 18	0.09
Stage 5	174±12	173±14	161 ± 15	0.12

Table 1. Heart Rate (HR) response at rest and during stages 1 – 5 at each percentage of body weight. ¹

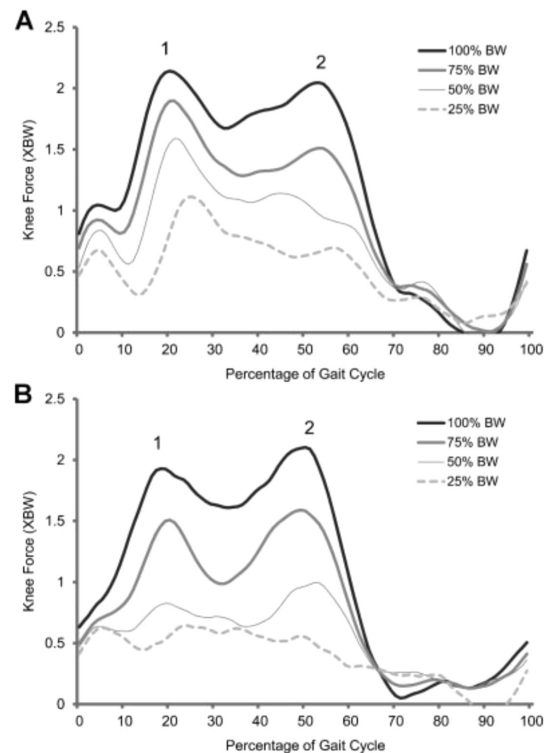
RPE	100%BW	90%BW	80%BW	p
Stage 1	6	6	6	0.81
Stage 2	8	8	8	0.87
Stage 3	11	10	9	0.26
Stage 4	12	11	11	0.50
Stage 5	14	13	12	0.29

Table 2. RPE values during stages 1-5 at each percentage body weight. ¹

References:

1. Figueroa M, Manning J, Escamilla P. Physiological Responses to the AlterG Anti-Gravity Treadmill. International Journal of Applied Science and Technology. 2011 Nov; 1(6) 92-97.
2. Patil S, Steklov N, Bugbee WD, Goldberg T, Colwell CW Jr, D'Lima DD. Anti-gravity treadmills are effective in reducing knee forces. J Orthop Res. 2013 May;31(5):672-9.
3. Thomson A. 2015, Oct 21. AlterG data presented at 2015 SMA National Conference. Retrieved from <https://twitter.com/AtholThomson/status/656971174467907584>

REDUCED KNEE FORCES



Representative gait cycles from two subjects (A and B) showing the consistent reduction of knee forces with increase in chamber pressure. ²

REDUCED PLANTAR FORCES

Speed	Bodyweight						
	50%	60%	70%	80%	90%	100%	
6 km/hr	1.0170 [.2095]	1.0260 [.2080]	1.0670 [.1865]	1.1440 [.1830]	1.1775 [.1780]	1.2095 [.1900]	1.0170 Minimum
8 km/hr	1.3675 [.2350]	1.4230 [.2580]	1.4945 [.2290]	1.5380 [.2245]	1.6570 [.2685]	1.7160 [.2415]	1.6630
10 km/hr	1.5585 [.2255]	1.6940 [.2160]	1.7695 [.2045]	1.8880 [.2165]	1.9785 [.2290]	2.0115 [.2230]	1.8783
12 km/hr	1.6415 [.2070]	1.8010 [.2150]	1.8775 [.2075]	1.9845 [.2205]	2.1095 [.2130]	2.1475 [.2240]	1.9860
14 km/hr	1.6925 [.2405]	1.8195 [.1855]	1.9560 [.1995]	2.0770 [.2180]	2.1875 [.2365]	2.2495 [.2240]	2.0506
16 km/hr	1.7665 [.2085]	1.8715 [.1950]	1.9860 [.1930]	2.1140 [.2085]	2.2230 [.2240]	2.3090 [.2195]	2.0937
							2.3090 Maximum

Maximum plantar force (bodyweight multiples [SD]) at the different combinations of indicated percentage bodyweight (50% to 100%), and speed of running/walking (km/hr). ³



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