



Test#3 June 2012

Right leg amputee

Mass

Feb 93.0 kg / 14 st 9lb / 912 Newtons

April 90.9 kg / 14 st 4.4lb / 891 Newtons

June 90.0 kg / 14 st 2.4lb / 883 Newtons

Height = 179.9 cm / 5 ft 10 $\frac{3}{4}$ "

GT (hip) height = L 94.1 cm R 100.0 cm

1) Y-test balance reach distance

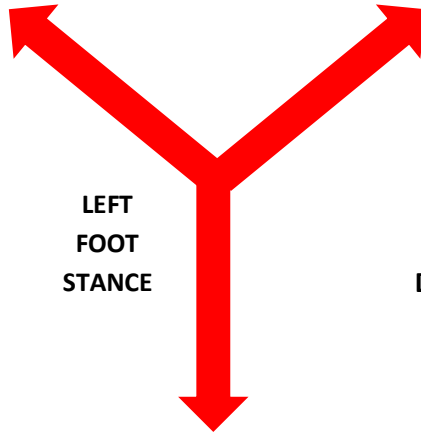
Leg		1			2			3		
Feb	L Standing (cm)	L 56.0	R 69.5	B 112.0	L 57.0	R 70.5	B 110.5	L 67.0	R 78.5	B 120.0
April	L Standing (cm)	L 62.0	R 70.0	B 110.0	L 61.2	R 76.5	B 110	L 67.5	R 86.0	B 120.5
June	L Standing (cm)	L 66.0	R 76.5	B 124.5	L 66.0	R 85.0	B 123.5	L 74.0	R 87.0	B 127.0
Feb	R Standing (cm)	L 58.5	R 56.0	B 99.3	L 56.5	R 49.0	B 93.5	L 44.0	R 49.2	B 92.8
April	R Standing (cm)	L 66.5	R 63.0	B 98.5	L 57.5	R 44.5	B 87.0	L 62.0	R 47.5	B 72.0
June	R Standing (cm)	L 75.0	R 53.5	B 82.5	L 77.0	R 60.5	B 90.5	L 81.0	R 62.5	B 95.0

Feb 60.0 cm
April 63.6 cm
June 68.7 cm

Feb 72.8 cm
April 77.5 cm
June 82.8 cm

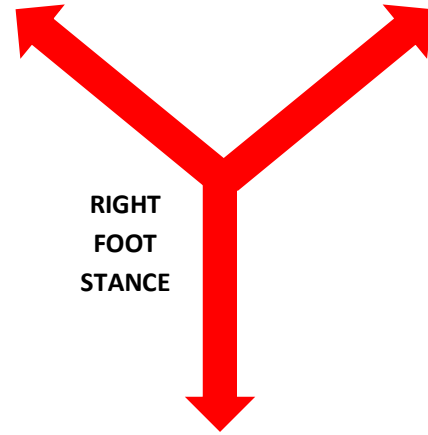
Feb 53.0 cm
April 62.0 cm
June 77.8 cm

Feb 51.4 cm
April 51.7 cm
June 77.7 cm



**LEFT
FOOT
STANCE**

**Foot Reach
Distance in each
Direction. Stance
Foot Centred in
Middle of the Y**



**RIGHT
FOOT
STANCE**

Feb 114.2 cm
April 113.5 cm
June 125.0 cm

Feb 95.2 cm
April 85.8 cm
June 89.3 cm

2) Underfoot Force tests

**Stronger, more
propulsion and better
balance when walking**

		PEAK VERTICAL UNDERFOOT FORCE (Newtons)		
		February	April	June
Walk	Left	1132.9	1095.7	1304.5
	Right (IDS)	989.9	861.4	1056.8
Run	Left	2528.3	2493.4	2607.2
	Right (IDS)	2273.7	2433.4	2222.8

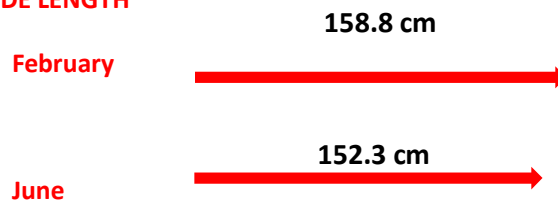
**Stronger left leg and well
maintained right leg
impulse and strength
when running**

Sled Drop Jumps

		Flight Time (s)	Contact Time (s)	Reactive Strength Index (RSI)	Height Jumped (m)	Peak Vertical Ground Reaction Force (GRF) (N)
DropJump Left	January	0.58	0.42	1.38	0.21	1851.00
	June	0.69	0.41	1.70	0.30	1886.54
DropJump Right IDS	January	0.42	0.54	0.78	0.11	1207.00
	June	0.52	0.56	0.92	0.16	1530.56

3) Running Stride Patterns

RUNNING STRIDE LENGTH



Minimal change... GOOD NEWS!
Stronger, better balance and running faster coupled with a only a small reduction in stride length is a great achievement



To note:

- **Balance has greatly improved. Gluteals, hip flexors and ab/adductors all working really well to keep the core balanced. Very impressive!**
- **Underfoot force, the force exerted on the ground by the foot, is now well balanced between left and right legs and showing good maintenance over six months training:**
 - **Left leg 19% increase in reactive strength index**
 - **Right leg 15% increase in reactive strength index**
- **Adjusted blade now seems to be complimenting Simon's running style, more upright, resulting in a comfortable toe-running action with small reduction in stride length.**
- **Conditioning seems to have gone really well and strength has optimally plateaued. Strength-to-weight has increased considering the welcome reduction in body weight. A little more flexibility around the hip and hamstrings would help increase stride length.**

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