



## Case study

# Accelerated Recovery

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Christian Fallesen

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## Case study **Accelerated Recovery**

“My residential rehabilitation at Perform at St. George’s Park was following a surgical dislocation and reconstruction of my hip. I can safely say that all my expectations were exceeded. The professionalism and positivity shown by all the members of the Perform team created a truly first-class environment, and the facilities were simply outstanding.

“Through a close dialogue with Paul Williamson and his team of physiotherapists, my programme was shaped and altered throughout the week as and when we discovered areas and exercises my hip responded particularly well to. I enjoyed this interaction and the open-minded attitude towards creating a tailored programme that worked for me and my specific condition.

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### **The Patient**

Christian Fallesen, a trader living in Monaco, travelled to Perform at St. George’s Park for an eight-day period of accelerated recovery following a surgical dislocation and reconstruction of his hip.



## First stage treatment

Christian arrived at Perform at St. George's Park four days following complex surgery on his left hip by Professor Damien Griffin. He suffered swelling related discomfort when moving only. The patient was required to use two elbow crutches to help him walk for six weeks after surgery.

Christian made significant progress during the first week of treatment, aimed at reducing the swelling which had an excellent outcome on reducing hip discomfort and increased range of movement. A vast amount of time was spent on rehabilitation in the water that proved to be a fantastic medium for Christian to re-educate his walking (gait pattern), and start early strengthening in an unloaded (weight-free) status. Christian was given a programme of exercises to follow once he returned home, including spending as much time in the water as possible to maintain the level of movement achieved at Perform.



Physiotherapy at Perform



Hydrotherapy pool at Perform St George's Park

## Second stage treatment

Christian returned to Perform six weeks later in August 2014 for a second period of accelerated recovery when off his crutches and able to bear his weight fully. During assessment, Paul noted a deficiency in gluteal (buttocks) activation and strength creating a dramatic effect upon the way he walked (his gait pattern). Christian had a significant lean to the left when standing. This was highlighted within the assessment on both the 10-metre walk and the treadmill. Paul worked specifically on using and strengthening the buttocks muscles to help correct this.

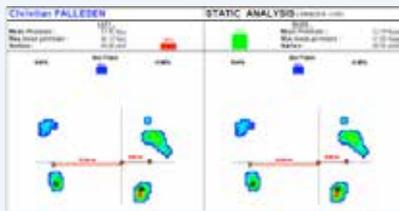
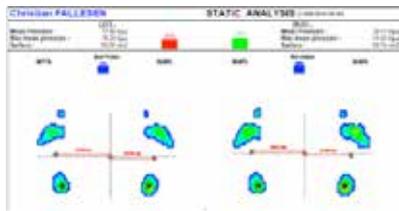
Christian's walking pattern made excellent progress over this five-day period of treatment. Christian still displayed a left lean when standing but much less than earlier in this week – this reduced from a 71% shift of his weight to the right down to 55%. Christian became aware of where his centre of mass and weight distribution lies, and was able to alter this to ensure he created balance between limbs.

Rehabilitation was partly spent in the water in the Hydrotherapy Suite to generate quality movement patterns, without having the pressure of weight bearing. This was complemented with gym-based exercises to generate strength and overall conditioning to improve fitness. Paul provided Christian with rehabilitation exercises, plus strength and conditioning films (via Dartfish software available to view on phone, tablet or computer) so Christian could continue to work on his rehabilitation at home.



Soft tissue massage

## Clinical results

4 July 2014		11 July 2014		21 August 2014	
					
<b>The images show how the swelling to the hip area reduced significantly over the two periods.</b>					
<b>Hip prom</b>		Left <b>4 July 2014</b>	Left <b>17 August 2014</b>	Left <b>21 August 2014</b>	
Flexion		90°	100°	100°	
Abduction		50°	60°	65°	
Internal rotation		5°	35°	40°	
External rotation		35°	55°	55°	
<b>Significant gains in hip range of movement were made over the two residential stays.</b>					
<b>Thigh circumference</b> CM Supra patella		Left	Left	Left	
0		35.8	34.6	35.0	
5		37.8	35.8	35.5	
10		43	40.0	39.5	
20		53	48.6	48.0	
<b>The swelling was vastly reduced over the two stays.</b>					
<b>Dynamometer</b>	Right	Left <b>4 July 2014</b>	Right	Left <b>17 August 2014</b>	Right <b>21 August 2014</b>
Newton's					
Adductor	124.4	117	180	178	292
Abductor	86.7	57.8	177	157	211
<b>This shows a significant increase in adductor and gluteal strength was achieved over the two stays, translating into vastly improved function.</b>					
<b>Static pressure analysis</b>	<p>Pressure analysis highlights a normalisation of standing pressure where the right weight shift changed from 71% to 55%.</p>  				
<b>Sprintex treadmill walking analysis</b>	 <p>Left stance phase highlights a significant left side shift and compensatory scoliosis.</p>  <p>vastly improved postural control during left stance phase and normalisation of gait pattern noted.</p>				