THE VALE CLINIC
PODIATRY

WELCOME TO

Run3D

Technology from
The University of Oxford

PATIENT INFORMATION

This leaflet tells you more about Run3D gait analysis and answers any questions you may have.

Please don't hesitate to ask your clinician if you have any further questions about your analysis

The Vale Clinic
Podiatry

You have musuloskeletal pain and following discussions with your clinician about treatment options you may be considering a Run3D gait analysis to help treat your condition.

The aim of this guide is to:

- Explain how Run3D gait analysis works
- Describe what is involved in a Run3D assessment
- Answer frequently asked questions

Run3D gait analysis is an advanced way of quantifying how you walk or run. The results of your assessment help your clinician to identify the root-cause of your pain and recommend data-driven advice and treatment.

Run3D

WHAT IS 3D GAIT ANALYSIS?

3D gait analysis uses special infrared cameras to measure the positions of reflective markers that are attached to your legs. The marker positions are used to create an accurate 3D model of your lower limbs and to calculate exactly how your pelvis, hip, knee and ankle joints are moving. This is the same technology that is used by specialist orthopaedic hospitals, research institutions and film studios!

Gait analysis enables your clinician to accurately and objectively identify any abnormal patterns or asymmetries in your walking and running gait. A complimentary musculoskeletal examination of your flexibility, strength, neuromuscular control and alignment is used to help your clinician further understand your biomechanical profile.

The information gathered during your Run3D assessment enables your clinician to provide data-driven rehabilitation advice and optimise your treatment pathway.

Why is 3D Gait Analysis important?

The body moves in three anatomical planes, which combine to form a complex sequence of movements and rotations. For example, when the knee bends, it also rotates and moves towards the other leg. In order to properly understand joint motion, it is important to measure all these movement patterns. 3D gait analysis enables us to do this.

Conventional video-based assessments only record motion in 2D and do not measure the rotational movements of the body. Furthermore, video analyses are usually subjective and not sensitive enough to detect the subtle abnormalities that can lead to musculoskeletal pain

runnir
Reebok
Reebok
Reebok

HOW CAN RUN3D HELP?

By taking scientific measures of your gait and biomechanical function, we can fully understand why you are moving in a certain way and provide you with a successful and long-term treatment plan.

The results of your Run3D gait analysis are used to give you data-driven advice and to recommend the optimal treatment pathway for your condition. Depending on what we find, this might be a customised exercise programme, physiotherapy, gait retraining, and/or footwear advice.

Our scientific approach enables us to:

- Accurately identifying the root-cause of musculoskeletal pain, is the first step to a successful treatment plan.
- Recommend evidence-based rehabilitation protocols and footwear advice on the basis of precise data.
- Prevent musculoskeletal injuries before they occur by identifying and addressing biomechanical risk factors.
- Improve running speed by identifying and addressing biomechanical factors that are detrimental to performance.

Who can benefit from 3D gait analysis?

3D gait analysis is suitable for anyone with musculoskeletal pain during walking or running, and sports-related injuries.

THE VALE CLINIC
PODIATRY

Run3D

Gait Analysis
159
110
105
126
Capture
Finish

RCA

1

SET-UP

Your clinician will attach reflective markers to your legs and shoes, positioned on specific anatomical landmarks.

This step takes about 5-10 minutes.

It is best if you can wear shorts, but if you are uncomfortable about this then please talk to your clinician.

CAMERA VIEW

Our infrared cameras don't see you, they only see the reflective markers.

Using the exact same technology as specialist orthopaedic hospitals, our infrared cameras measure the position of the markers 200 times a second and we use the data to create an accurate 3D model of you walking and running.

2

3

GAIT ANALYSIS

You will be asked to walk and/or run at your preferred speed on the treadmill, and once you are comfortable, your clinician will start to record your data.

Dependent on your presentation, your clinician might do recordings in different shoes or at different speeds

MUSCULOSKELETAL TESTING

(Gait and MSK appointment only)

Your clinician will carry-out a series of objective clinical tests to quantify your strength, range of motion, alignment and function.

By combining the results of your gait analysis and musculoskeletal tests, your clinician is able to understand how and why your body is moving the way it is and deliver a data-driven approach to your treatment plan.

4

5

REPORT INTERPRETATION

Run3D captures a lot of data about your gait and biomechanics. Your clinician needs to review your report, taking into account your history, and use the information to create your treatment plan.

Your interpretation might take place on the same day as your gait analysis or you might be called back for a review appointment.

RECOMMENDATIONS

The advice that will be given to you after your Run3D assessment will be individual to you, and dependent on your presentation and the results of the analysis.

Here are some of the things your clinician might suggest: exercise rehabilitation, physiotherapy, gait retraining, footwear or orthotics, onward referral.

6

What are people saying about Run3D?

'Run3D identified the root cause of my injury, now I'm armed with the tools to rectify it'
Jo Pavey, Team GB

'My Run3D assessment was one of the most valuable two hours of my career to data'
Luke McKenzie, 6 x Ironman Champion

'The Best Gait Analysis'
Runner's World Magazine

'After 30 mins, Run3D has identified the problem and told me what is causing it - that's the first step to putting it right.'
Triathlon 220

'For anyone seriously staying injury free and enjoying running for life, I'd highly recommend a session with Run3D.'
Fiona Bugler, Journalist

THE VALE CLINIC
PODIATRY

Run3D

THE VALE CLINIC
PODIATRY

Run3D

We can also help with:

- Biomechanical assessments
- Swift®: Verruca treatment
- Shockwave® Therapy
- Fungal nail treatment
- Diabetic foot care
- Nail surgery
- Ingrowing toenails
- Standard podiatry appointments

The Vale Clinic Podiatry
Ground Floor, Unit 15 Elms Walk,
Wokingham RG40 2FE

REGISTERED ROYAL COLLEGE of PODIATRY MEMBER

hcpc registered
www.hcpc-uk.org

www.thevaleclinic.com 0118 304 9389 info@thevaleclinic.com

Proudly supported by:

UNIVERSITY OF OXFORD

Innovate UK

EPSRC
Engineering and Physical Sciences Research Council

VICON

Motekforce Link
IMPROVING HUMAN PERFORMANCE