



Science shows that people can reach a mindful state during running.

BROOKS CALLS IT RUNFULNESS.



# INTRODUCTION

At **Brooks Running** we believe in the transformative power of the run. Not only for the body, but also for the mind. With benefits for the mental health of runners. Therefore we leveraged behavioral and brain sciences to investigate the effect of running on the brain. Our researchers worked together with **Professor Olivier Oullier**, the globally renowned consumer neuroscientist, to identify what happens in our brain before, during and after running.

The scientific study conducted on European members of our RunHappy Team reveals that **running can help people reach some form of mindful state.** This occurs when stress and focus levels simultaneously decrease in the brain. This causes some kind of temporary disconnection from everyday life issues. We always knew that running is much more than just building up your physique. Therefore we are really excited that the scientific pilot study conducted by Brooks clearly shows that running can lower stress and focus. This takes runners to a state of wellbeing that unlocks something inside you: **CREATIVITY, NEW IDEAS, NEW WAYS OF** 

THINKING, NEW OPPORTUNITIES.

### We call it Runfulness!

We also surveyed runners from our European Run Happy Team to better understand the effects of running on their mental wellness. Both studies show that running relaxes the mind and that people can get into a flow in which new ideas are unlocked. To reward these transformative ideas and help them become a reality, Brooks created the Run Fund. Because we believe that people can find the power to change a day, a life, and yes, even the world while they run. And now we can back it up with science. Just as we always thought. In this report we tell you all about Runfulness and the Run Fund?

In the next chapters you can find more details about the scientific study we conducted in collaboration with Professor Olivier Oullier. We also elaborate on the most striking results of the runners survey. We also include some **useful tips** to help reach a state of Runfulness.

WE WISH YOU LOTS OF RUNFULL RUNNING MOMENTS!

#### **MATTHEW DODGE**

Managing Director of Brooks Running EMEA





### The scientific study conducted in collaboration with Professor Oullier focused on tracking how stress and focus evolve before, during and after running.

We also investigated how different kinds of visual and auditory environments influence one's mental state while running. During the study, runners were wearing wireless brain sensors that monitored the brain's electrical activity in their cerebral cortex (the top layer of the brain) before, during and after running on a treadmill while they were exposed to various visual and auditory environments.



### BEFORE THE ACTIVATION

### PAPERWORK, INSTRUCTIONS & SET-UP

- Brooks staff welcomes the participant
- 2 The participant reads and signs consent form and media release
- 5. brains4 staff explains the process to the participant
- brains4 staff equips participant with biometric sensors
- 5. The participant performs a few pre-activation calibration and control tasks



### **ACTIVATION**

#### **DESIGN (1/2)**

- The participant takes a couple of minutes to find his/her preferred treadmill/running speed
- 2 Treadmill run duration = 64 minutes (uninterrupted unless there is an issue)
- During the run 4 visual and 4 auditory environments will be combined:

#### VISUAL ENVIRONMENTS + AUDITORY ENVIRONMENTS

- Blank
- Forest.
- Citv
- Beach

- Silence
- Podcast
- Radio news
- Music

### AFTER THE ACTIVATION

### ADDITIONAL TASKS & DEBRIEF INTERVIEW

- The participant performs mental simulations
  - imagine a terrible run (2 minutes)
  - imagine **a great run** (2 minutes)
  - imagine experiencing something that makes you very happy (2 minutes)
- 2. The participant performs a few post-activation control tasks







# THE SEARCH FOR RUNFULNESS

To identify the Runfulness effect, our researchers looked for significant differences in stress and focus levels experienced by the brain, before, during and after the run. The results of the study suggest that the Runfulness state happens when both stress and focus levels decrease simultaneously.

In the exploratory research 80% of the runners experienced a clear decrease in stress and 40% also experienced a decrease in focus at the same time their stress level dropped. This can lead people to enter a state of wellness and disconnection from the world and from what worries them on a daily basis:

the Runfulness effect

### **NO DISTRACTIONS**

At a brain level. Runfulness is likely to be associated with disconnecting from everyday life issues and connecting with 'THE MOMENT. The Runfulness effect seems to happen when people run in a visual environment they fancy and with NO RADIO. PODCAST OR MUSIC to distract them. Based on the experience that people shared during the interviews, there does not seem to be a minimum amount of time or distance they need to run to reach Runfulness. So the effect can be reached quickly, if the circumstances are right. Runfulness seems to work in bursts of a couple of minutes rather than switching to a different mind set that lasts very long.





#### **PROFESSOR OLIVIER OULLIER:**

"Running is one of the most popular and cost-effective ways to maintain good physical health. But there is no health without brain health, and running is

also great for the brain. Brooks understands that mental wellness is key to lead a successful life. By introducing the concept of Runfulness, Brooks unveils what the brains of runners experience, including changes runners might not be aware of. When asked, most runners did not realize that their levels of stress decreased thanks to running as revealed by the pre- and post-running comparisons. Combining traditional market research with rigorous consumer neuroscience offers unprecedented insights on the brains of runners and what makes them feel better."

Participants in the study were equipped with wireless brain sensors which have been validated 4000+ scientific publications. The technology used is called EEG (ElectroEncephaloGraphy), it allows to measure the electrical activity of the brain. Stress and focus levels were monitored in their brains to identify possible neuro-markers of the Runfulness effect.





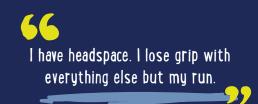
Sometimes I experience a state of mind, of flow. It's almost some kind of meditation. It appears and then disappears when something like a car distracts me.





77

"It feels I can go on forever.
with my pace not too slow.
not too fast. Im doing
something good for my body.
It makes me enjoy staying
at home more. If I don't run I
don't feel well at home".





Science shows that people can reach a mindful state during running. This happens when stress and focus levels simultaneously decrease in the brain during a run. This takes you to a state of wellbeing that unlocks something inside you: new ideas, new ways of thinking, new opportunities.

Brooks calls it Runfulness.

"After a few kilometers, everything is gone. That's the best bit. I totally disconnect from the world. I letgo of everything, I'm in the flow. I feel no pain"

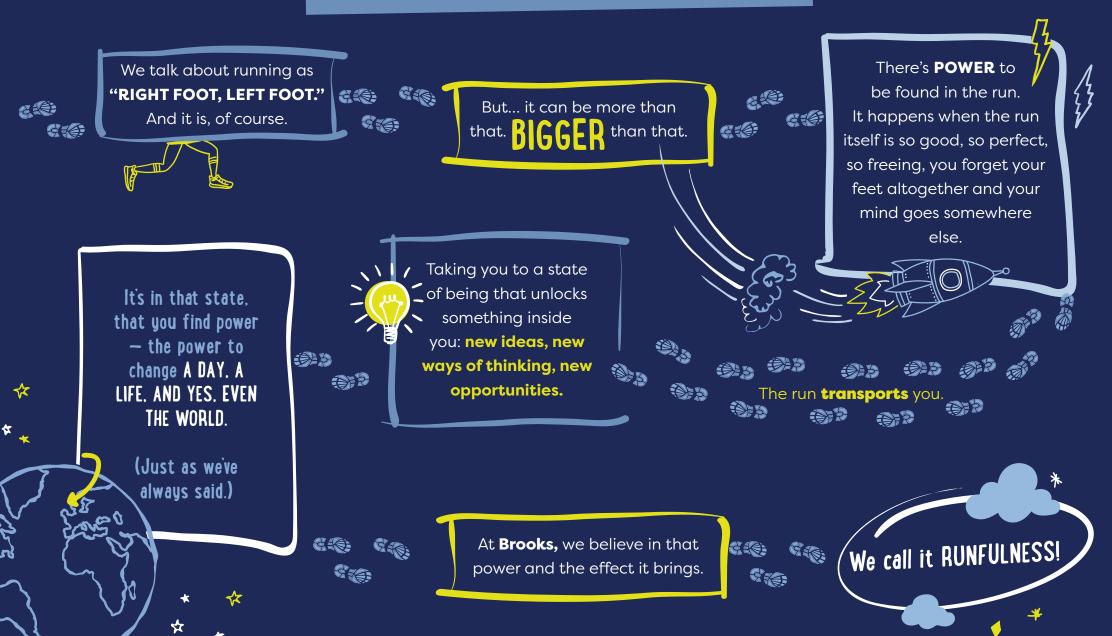


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When I run in nature. I have moments when I feel disconnected with daily life and connected with everything around me. in the moment. It's just there and now. It can last for few seconds or a couple of minutes.



### RUNFULNESS MANIFESTO\*\*



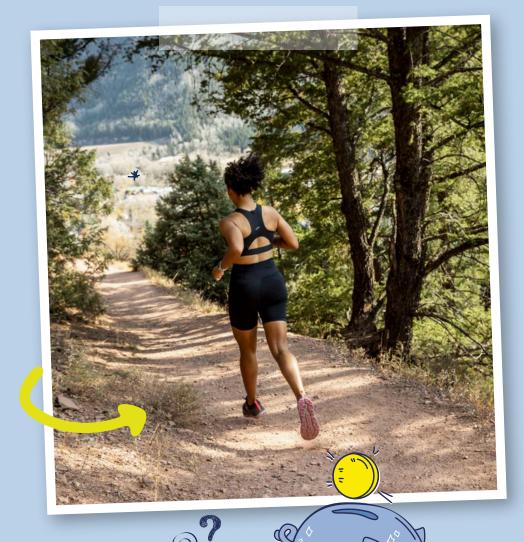
### Brooks launches THE RUN FUND

It is clear: Runfulness can lead to new inspiration and creativity. Has Runfulness led to an idea that can change a day, a life or even the world? Until March 31, 2021 people can enter their ideas in the Run Fund competition on:

https://www.brooksrunning.com/en\_gb/runfulness-project/

A professional jury will pick five winners globally that will get supported by Brooks with funds and resources to help bring their idea to life. The jury consists of:

- Jay Ell Alexander (Black Girls Run CEO)
- Rodney Hines (CEO of Metier Brewing Company, former Director of City Strategy at Starbucks and was on Fast Company's Most Creative People List in 2017)
- Hooman Radfar (Co-Founder and CEO of Collective, an online, back-office platform designed for businesses-of-one)
- Kate Glantz (Head of Social Impact at Luma Pictures, has a strong passion for philanthropy and global, mission-driven work)









In December 2020 and January 2021 Brooks carried out a survey among runners in seven European countries. Goal of the survey was to determine what effect running has on the mental state of people that run on a regular basis. The runners that participated in the survey are part of Brooks' Run Happy Team, a group of runners that share a common connection in their love for running at all levels of the sport. The runners are based across Europe: in Belgium, France, Germany, Great Britain, Italy, Spain and the Netherlands.



### WHY DO THEY RUN?

We started by asking our team what kind of runners they are. Are they focussed on a goal that has got to do with their physique, do they run for enjoyment and to clear their mind or do they want to run faster and longer? There is a clear winner here.

People mostly run to **relax** and for their **enjoyment: 45%**. The second reason is to run **faster and longer (28%)**. Although running has a clear physical effect, such a tone and maintaining physique, this effect seems to be secondary. Achieving a **physical goal** was chosen by **25%** of the respondents.

### THE BENEFITS OF RUNNING

Some of the key benefits of running according to our runners:

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• It relaxes the mind - Three quarters of runners indicate their mind always relaxes during a run. For the other quarter of our runners their mind relaxes sometimes. No one stated that their mind never relaxes during a run.



- People feel energized Although running is a physical activity, people do not feel exhausted after their run, but energized! This was the answer of more than 8 OUT OF 10 RUNNERS.
- **Able to tackle new challenges -** Running also has a positive effect on the ability to tackle new challenges. When people were asked if they feel ready to tackle new challenges after running, **77%** of the runners with a 'yes' and **13%** 'sometimes'



## THE MIND TRAVELS TO PLACES THE BODY CAN'T GO

Many people tend to get lost in thoughts during a run. When we asked our runners whether they ever finished a run and couldn't remember what they were thinking about while running. most people answered with a 'YES': 78%. Only 22% of the runners did not experience this effect.

Do you sometimes think about 'stuff' during your runs that you usually wouldn't think about?, we asked our runners.

And also this answer is a clear 'yes'. Almost **9 OUT OF 10 OF OUR RUNNERS** indicates they experience getting these new thoughts. When we asked them why, the following **TOP 3 ANSWERS** were given:

I somehow reach a different state of mind during running that I wouldn't reach otherwise during my other activities.

Because I finally have the time to think about it

I am not sure exactly why it happens. it just happens.



### **Transformative thoughts**

The runners were asked if running ever allowed them to have new ideas that **changed their personal or professional life. 80%** of people say they have experienced transformative new ideas during a run. This shows that running has a similar effect to taking a shower, where people relax and allow for a flow of new ideas to appear in their brains and even for some to make big decisions. These thoughts were divided into several categories, both personal

and professional. A lot of the runners in our survey made a decision about their job, because the run inspired them to think about other possibilities. Or how to get a better work-life balance. People think about their relationship status a lot too during the run. The decision to divorce was made by several of our runners. On a lighter note, many of our runners dream about their travel destinations during a run. Often linked to a running goal they think of, such as running a specific marathon.

### INCREASE THE CHANCE TO REACH A STATE OF RUNFULNESS

In general it is clear that distractions prevent people from reaching a state of Runfulness. Based on the scientific pilot study, the qualitative interviews and the research, the following tips will increase the chance to reach a state of Runfulness:



### SILENCE

Run in **SILENCE** or with music that does not hijack your attention. During the pilot, silence appeared to be necessary for Runfulness to occur. In general listening to people talk or to songs you don't know, will trigger curiosity therefore making people more alert and unable to disconnect.



All but one participant in the pilot study mentioned they cannot reach a special state while running with others. This does not mean that people should always run alone, as it can be very inspiring or energizing to run with others, but it will most likely prevent people from reaching a Runfulness state.

### AVOID TIME PRESSURE

When you want to achieve a state of Runfulness it is important that you don't have to worry about being home at a specific time. Going for a quick run is great, but it can get in the way of Runfulness.



### DON'T FORCE IT

All the participants who mentioned reaching a different state of mind/wellness when they run, mentioned it was never intentional. This is the same for the runners in the survey. They hope to experience it, but do not 'work hard' to reach it. So do not try too hard, as that can have the opposite effect. Let Runfulness come to you!

### -WEAR COMFORTABLE GEAR

As the Runfulness effect most likely appears when there are no distractions, it is important that the running gear is comfortable. 80% of the participants reported that what they wear contributes a lot to a feeling of wellbeing while running. Shoes with cushioning, such as the new Glycerin 19. Brooks softest shoe yet, can help avoid distractions. The shoes are available in neutral and support. Not only the right shoes, but also the right clothes contribute to this. You can imagine having to pull up your running tights all the time will certainly be a distraction!



### BROOKS | RUN HAPPY