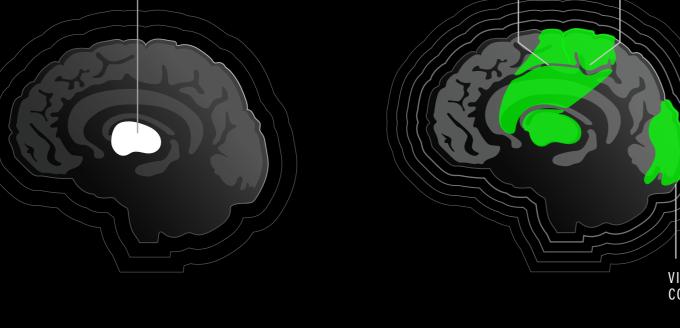
ADIDAS GUIDANCE ON OVERCOMING PRESSURE IN GOLF

With the ambition to disarm pressure in sport – a feeling experienced by athletes of all levels – adidas has teamed up with leading sport neuroscientists, neuroll, to understand the impact it has within the game of golf – in particular putting.

Working with **Ludvig Åberg** and **Rose Zhang**, as well as amateurs inthe game, adidas and neurol1 delved into their minds to identify and analyse where pressure peaks. From this data, a toolbox of techniques has been developed to help

enable athletes to overcome it and access the optimal zone - the brain state in which athletes perform at their best.

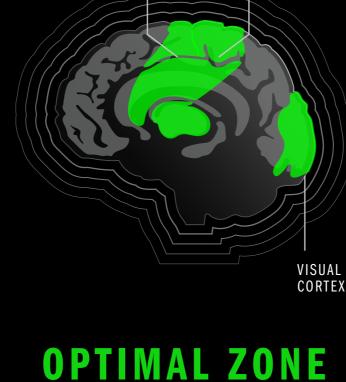
NEURO11'S STATE OF THE ART TECHNOLOGY, WHEN CONNECTED TO AN ATHLETE IS ABLE TO IDENTIFY WHEN THE BRAIN IS... THALAMUS MOTOR CORTEX SENSORY CORTEX



Brain frequency is in the state

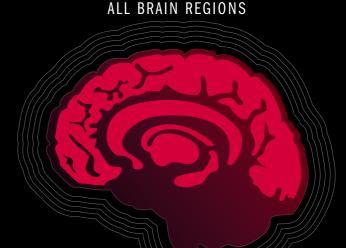
TOO LOW

associated with relaxation and/ **or tiredness** – this is deemed as too low for optimal performance



Brain frequency is in the state where it is mentally focussed and

psychologically efficient – this is deemed **ideal** for optimal performance and is often referred to as being 'in the zone' "The 'OPTIMAL ZONE' is the sweet spot between relaxation



neuro 11

Brain frequency is in an over analysis state – this is deemed

TOO HIGH

as too high for optimal performance/ pressure is having a negative impact - your brain is falling out of the optimal zone and losing focus

NEUR011

SAY

and over thinking. This is where the athlete's brain is in a state which is physically relaxed but mentally focussed, leading to optimal movement and performance. Training with pressure (e.g. a high-stakes putt challenged by distractions) can help athletes learn how to stay in the

optimal zone for the big moments."





KEY TERMS

brain is in the optimal frequency zone during performance and moments

'ADDING' PRESSURE

of pressure

BRAIN FOCUS INDEX

Individually calculated value which

indicates **how deeply the athletes**

Implementing a tactic to the athlete's training session which intentionally puts pressure on them – i.e. requirement to make a certain amount of putts from a specific distance



BASELINE

is not doing exercise and is under no pressure, so it allows for comparisons to be made when training and moments of pressure occurs IN THE ZONE

Brain focus index shows athlete is in the

optimal zone for performance – a perfect

balance of being mentally focused and

Athlete's brain focus index pre training

- **serves as a reference value.** The brain



PRESSURE

IN GOLF

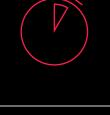
Whilst **pressure** looks and feels different for each athlete some of the **contributing factors** can be:

Critical shots



Adverse weather conditions

Self-expectation



PUTTING PRESSURE

Final moments of the round



yet physically relaxed



A STUDY¹ SHOWS:

AT A TOURNAMENT

is needed to commit to your line and make a good stroke - even the slightest nerve can cause you to three-putt or do something that you don't really want to do on the golf course" - ROSE ZHANG

"Putting is definitely one

of the most challenging,

because it's a short stick, and

ultimately half of your score

is dependent on it. So, this is

where the real mental focus

suddenly, it's a good score and then you can hit the ball really well and putt not very well, and it's a poor score." LUDVIG ÅBERG

"I think putting is the most

exposed part of the game,

a good round versus an

'cause what really separates

average round is the putting.

good putting round, and then

You can have a decent ball

striking round and then a

INCREASE INCREASE

misjudged the speed of their ball from 2.4m,

they consequently missed seven putts in a row

and struggled to get back into the 'Optimal

Zone'. Meanwhile, Rose missed three putts in a

GRASSROOT GOLFER

STRUGGLED TO GET BACK INTO OPTIMAL ZONE

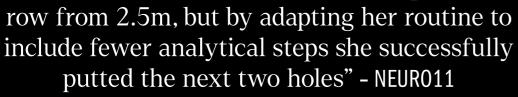


ROSE ZHANG

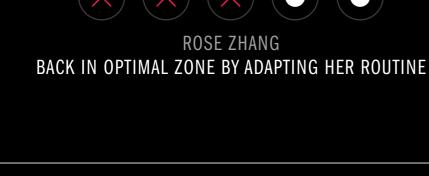
IN OPTIMAL ZONE

GRASSROOT GOLFER "When the grassroots golfer missed a shot or

IN OPTIMAL ZONE



Putts after missing shot from 2.4m:



LUDVIG ÅBERG VS GRASSROOT GOLFER PRESSURE

2.4 M PUTT -----

'TOO HIGH' ZONE

INCREASE

IN OPTIMAL ZONE

5M PUTT —

ROSE ZHANG

ROSE ZHANG

situations."

- ROSE ZHANG

When intentionally interupted: INCREASE 'OPTIMAL' ZONE

"My dad used to distract me during

training. So, every time I was in the

middle of a practice session, he would

or a technique to a friend or a junior.

He purposely disrupted my practise to

put me in high intensity, high pressure

call me over to demonstrate a golf swing

INCREASE 'TOO HIGH' ZONE GRASSROOT GOLFER

GRASSROOT GOLFER

INCREASE

IN OPTIMAL ZONE

9M PUTT 34% 'TOO HIGH' ZONE

LUDVIG ÅBERG GRASSROOT GOLFER

"The grassroot golfer's measurements

were driven by the weight of

expectations from themself and others.

Ludvig going into the 'Too High' zone was

caused by how quickly he switched from

analysing the putt to shooting." - NEUR011 NEURO11'S TIPS FOR TACKLING PRESSURE

MOVE ON FROM MISTAKES: FOCUS ON THE NOW: Focus on your target instead of If you make a bad shot during a game, the areas of the course you want don't dwell on it, instead focus on how to hit the next shot instead of to avoid- if you worry about hitting

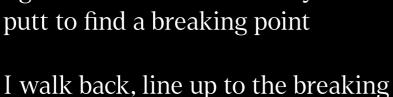
my putt from all sides

MANAGE YOUR EXPECTATIONS:

Know your statistics for making

a putt from a certain distance so

you don't get frustrated if you don't.



Align putter to my line, set up, ensure hands are soft and square - putt

remains consistent

LUDVIG ÅBERG

faster in basically everything that I do, so I walk faster, I talk faster, all these things and everything goes a little bit quicker." - LUDVIG ÅBERG

game – even the best make bogeys. Acknowledge that playing a flawless game isn't a reality for any golfer - because no one plays perfectly.

brain circuits calculating their scores and decrease your focus on what really matters.

ZONE OUT YOUR OPPONENT:

Play the course, and not your

opponent - avoid thinking about their

score as you can activate irrelevant

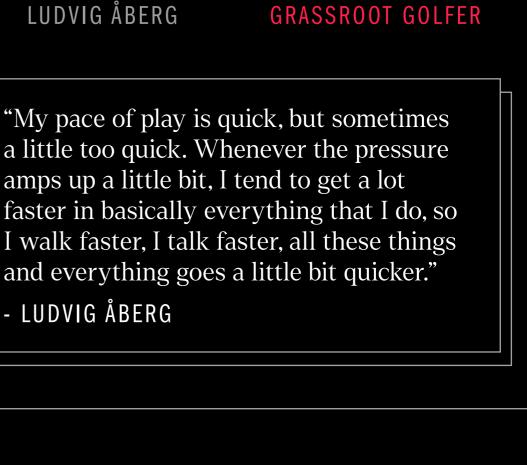
INSIDE LUDVIG'S PUTT ROUTINE

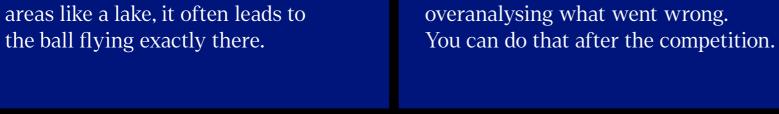


At a 10 or 12 foot putt, I try feel how much break there is with my feet

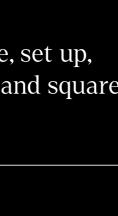
the ball – practice two strokes and visualize it going in Before the shot, I realign the line on the ball to the one on the putter

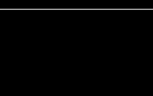
I take a breath, focus and aim to put a good stroke on the ball for the putt



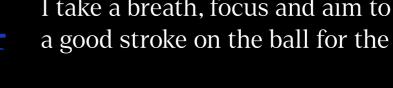


INSIDE ROSE'S PUTT ROUTINE I get to the green and read





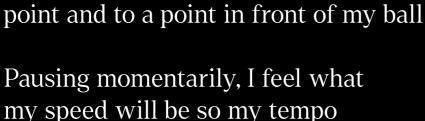
I hold the putter over the line on



TRUST YOUR PROCESS: Once you have chosen your club and are clear on the technique you'll use, don't doubt your decision - just focus on the execution of the stroke.

 \bigcirc





PERFECTION IS AN ILLUSION:

In reality, there is no perfect golf

I go around the centre of my

Pausing momentarily, I feel what my speed will be so my tempo

¹ DC Hickman and NE Metz, 2015. The impact of pressure on performance: Evidence from the PGA TOUR. Journal of Economic Behavior & Organization.