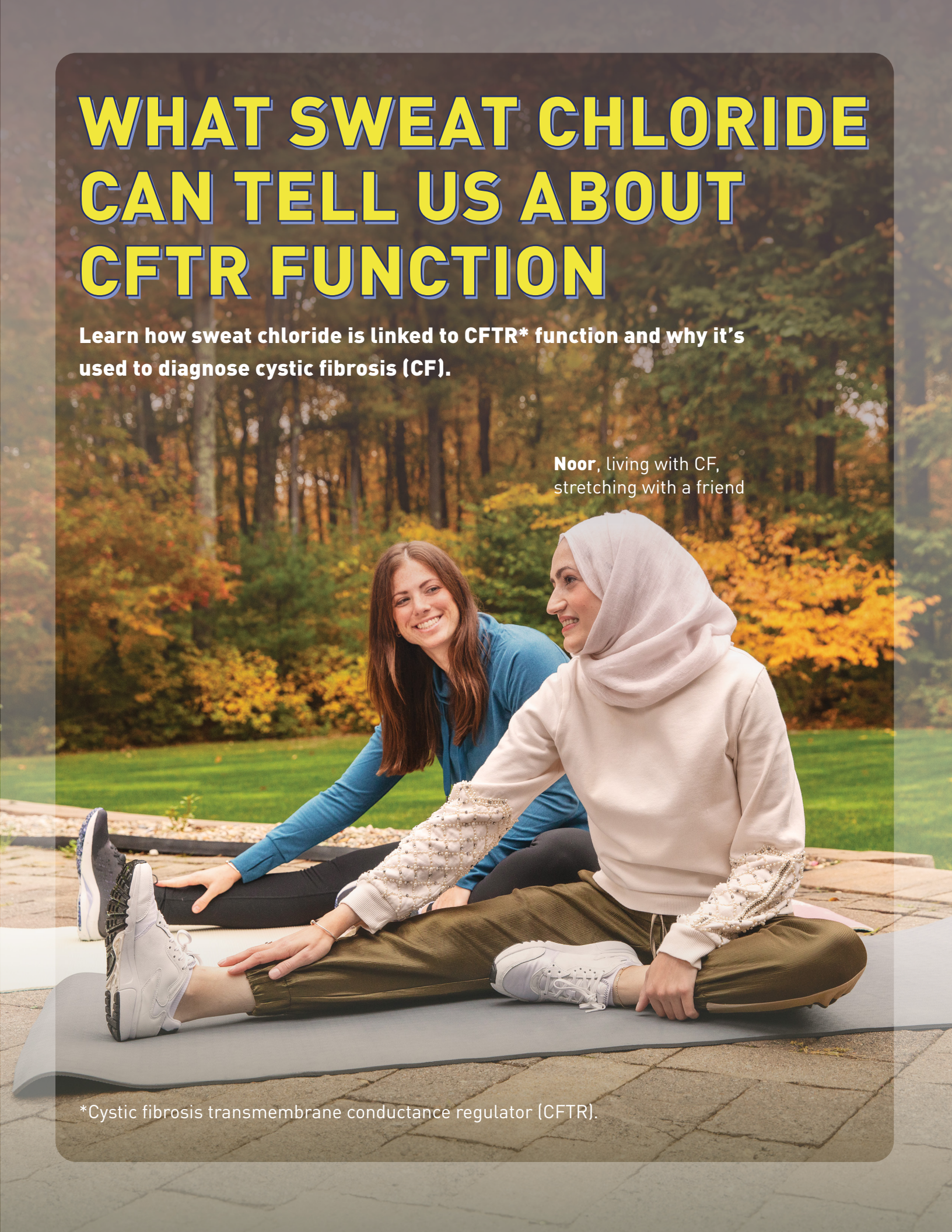
# WHAT SWEAT CHLORIDE CAN TELL US ABOUT CFTR FUNCTION

**Learn how sweat chloride is linked to CFTR* function and why it's used to diagnose cystic fibrosis (CF).**

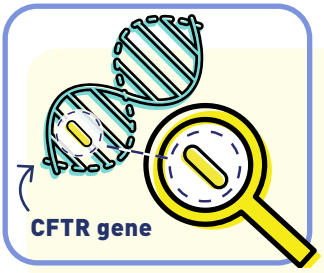


**Noor**, living with CF, stretching with a friend

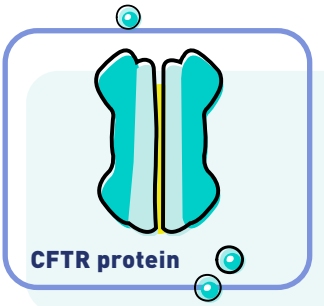
*Cystic fibrosis transmembrane conductance regulator (CFTR).

# THE ROLE OF CFTR FUNCTION IN CF

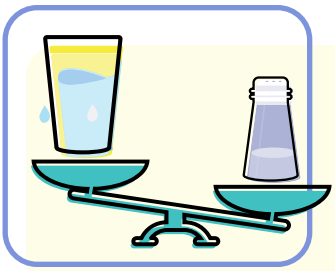
**The underlying cause of CF is a lack of CFTR function.**



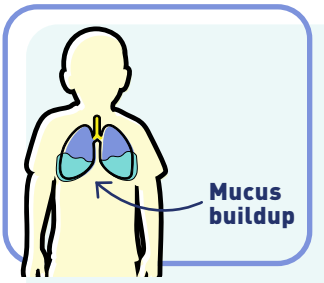

**CFTR function** starts with the *CFTR* gene, which tells the cells in the body to make CFTR proteins.




**CFTR proteins** are designed to help move chloride (a part of salt) into and out of cells. This process helps the body maintain a healthy balance of salt and water.



**When CFTR proteins don't function properly** because of changes in the *CFTR* gene, the balance between water and salt gets thrown off.

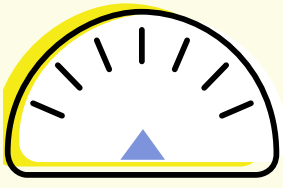



**An imbalance of salt and water** causes a buildup of thick mucus throughout the body. This results in the symptoms and progression of CF, as well as damage to organs, such as the lungs and pancreas.

# THE CONNECTION BETWEEN SWEAT CHLORIDE AND CFTR FUNCTION

**You probably know about salty sweat as a sign of CF. That's because people with CF have higher levels of chloride in their sweat.**

A lack of CFTR function causes an imbalance of salt and water, which makes more chloride show up in sweat.



That's why sweat chloride is an indicator of CFTR function. It's also why the sweat test, which measures sweat chloride, is used to diagnose CF.

# SWEAT CHLORIDE IN CLINICAL STUDIES

Most people in the CF community know that sweat chloride is used to diagnose CF.

But researchers in clinical trials also use sweat chloride levels as a way to measure CFTR function.

## Questions for your care team

- Could you tell me more about CFTR function and how it can be measured?
- Could you tell me more about the link between sweat chloride and CFTR function?
- What do sweat chloride levels indicate at diagnosis?
- What could cause someone's sweat chloride levels to change?
- What role does sweat chloride play in disease severity?