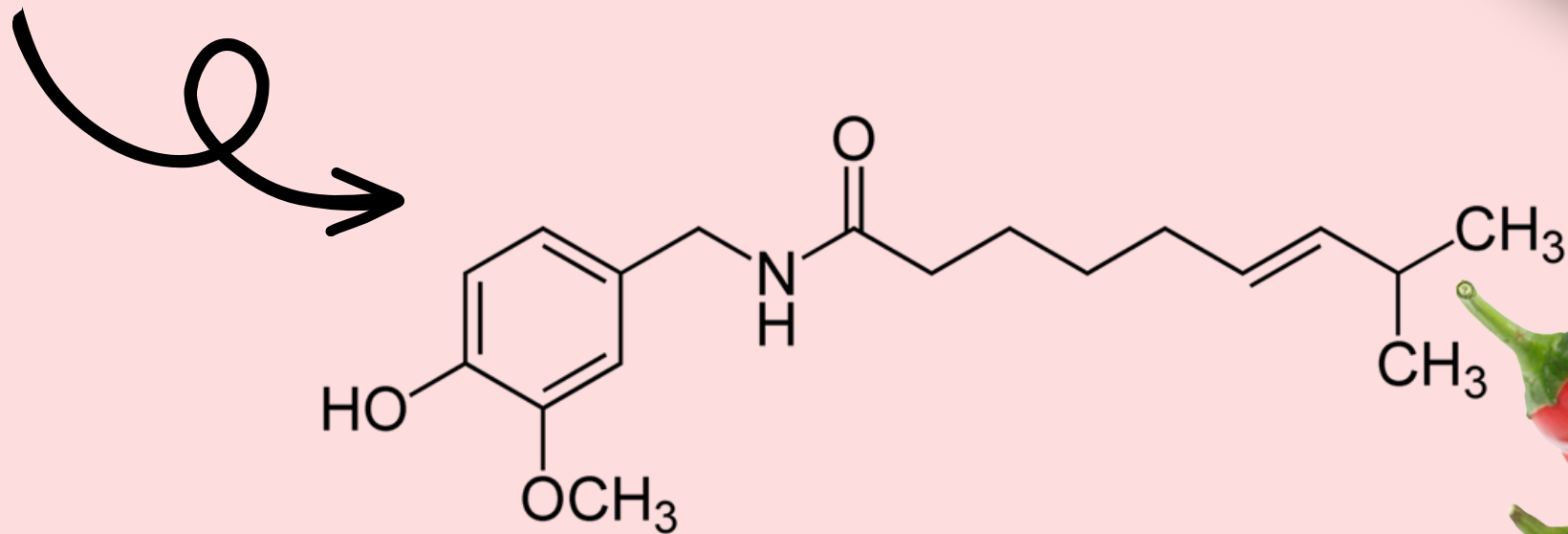


CHEMISTRY OF CHILLI



What makes chili hot?



*Most common
capsaicinoid*

Capsaicin



- The heat of chilies is caused by a family of compounds known as **capsaicinoids**.
- Capsaicin has no flavor or odor but acts directly on the pain receptors.
- It causes a **burning sensation** in any tissue with which it comes into contact.



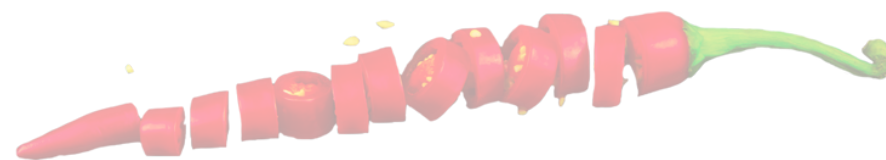


Pure capsaicin	15,000,000
Carolina Reaper	1,400,000 - 2,200,000
Trinidad Scorpion	1,200,000 - 2,000,000
Ghost	855,000 - 1,041,427
Red Savina	350,000 - 577,000
Fatali	125,000 - 325,000
Habanero	100,000 - 350,000
Scotch Bonnet	100,000 - 350,000
Thai	50,000 - 100,000
Cayenne	30,000 - 50,000
Aji	30,000 - 50,000
Tabasco	30,000 - 50,000
Arbol	15,000 - 30,000
Serrano	10,000 - 23,000
Hungarian	5,000 - 10,000
Chipotle	5,000 - 8,000
Jalapeno	2,500 - 8,000
Poblano	1,000 - 1,500
Anaheim	500 - 2,500
Pepperoncini	100 - 500
Bell Pepper	0

→ **Scoville scale**

Discovered by
Wilbur Scoville

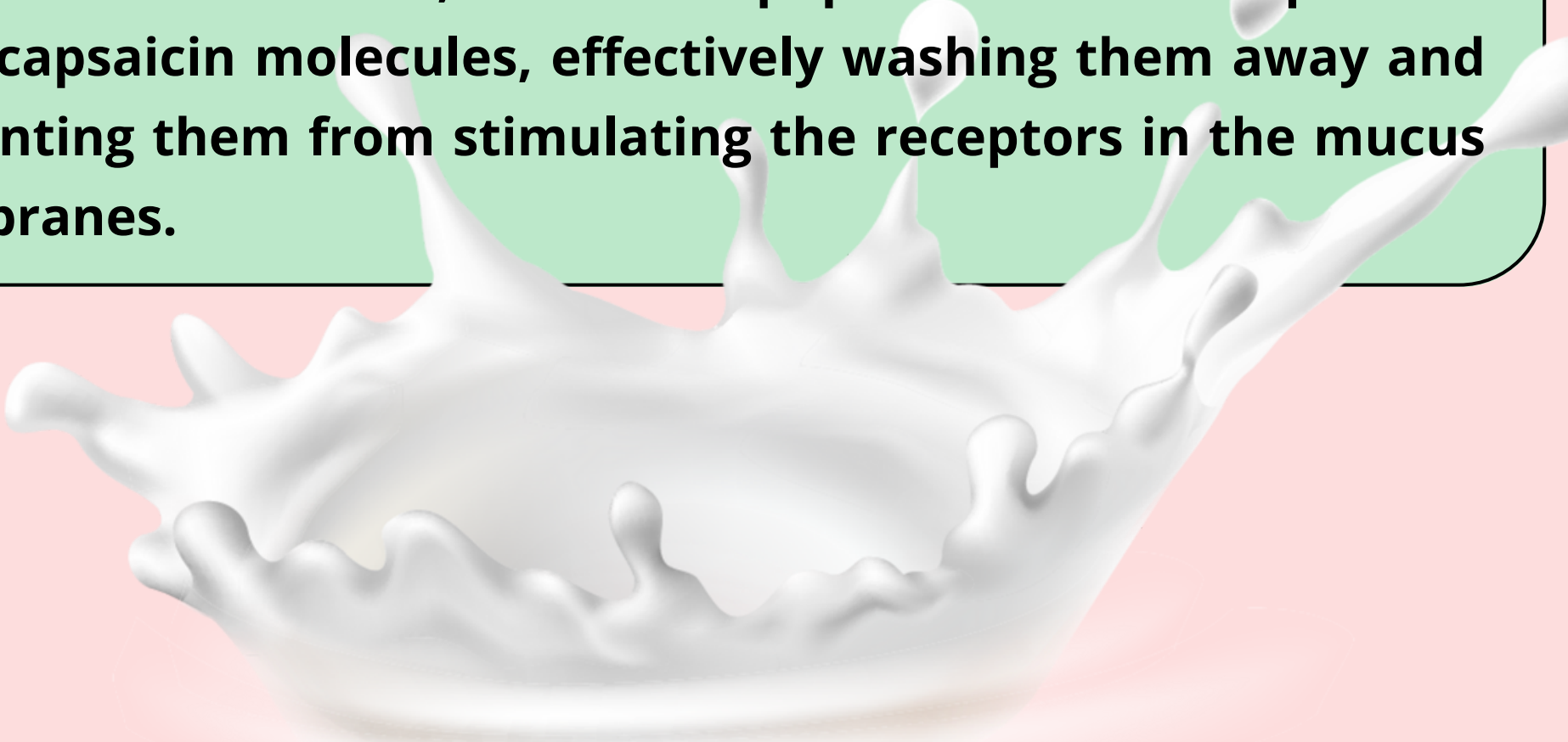
Chilies' heat can be measured using:
1. **Scoville scale**
2. **HPLC** (High performance liquid chromatography).



- The capsaicin molecule's long hydrocarbon 'tail' makes it insoluble in water; but, it is readily soluble in **alcohol and oil**.



Drinking milk is the best way to relieve the burning sensation caused by too much chilli because it contains a class of proteins called casein, which is lipophilic and envelopes the fatty capsaicin molecules, effectively washing them away and preventing them from stimulating the receptors in the mucus membranes.



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