**Humidity:**

The ideal indoor humidity level for health is between 30% and 60%, with 40% to 60% being the most recommended range. Humidity levels can vary depending on the season and location, with humidity being higher in the summer and lower in the winter.

Humidity levels that are too low or too high can cause health problems:

* Low humidity  
  Can cause dry skin, irritated eyes, and a sore throat. It can also increase the risk of catching airborne viruses like the flu.
* High humidity  
  Can make your home feel stuffy and cause condensation, which can lead to the growth of mold and dust mites. These allergens can trigger asthma and allergy flare-ups.

40% to 60%

According to the Environmental Protection Agency, the best indoor relative humidity falls between 30% and 50%, and it should never exceed 60%. Other studies suggest 40% to 60% is a better range

**Temperature:**

The ideal temperature for a resting human body is between 68° and 77°F (20° and 25°C) with moderate relative humidity and little wind. The World Health Organization (WHO) recommends keeping indoor temperatures between 64° and 75°F for healthy people

**Rainfall Average:**

The average annual rainfall on Earth is 39 inches (990 millimeters). However, the distribution of rainfall is uneven across the globe:

* **Equatorial zone and Southeast Asia**: These regions receive the most rainfall.
* **Middle latitudes**: These regions receive moderate amounts of rainfall.
* **Deserts and around the poles**: These regions receive little rainfall.

In the United States, the average annual rainfall has been around 30 inches since 1980. However, the average precipitation varies across the country, with the southeast receiving 35–40 inches per year and the north receiving 25–30 inches per year.

To calculate the average annual rainfall, you can add up the daily rainfall measurements in a location. For a wider area, you can average the annual rainfall measurements from different locations in the region.

Rainfall is measured using a rain gauge, which records the change in rainfall depth over time. A disdrometer can provide more detailed information by generating a light sheet that is partially blocked when a raindrop falls through it

**UV Index:**

The UV index is a measure of the strength of the sun's ultraviolet (UV) rays, and it helps people determine when to protect their skin from the sun. A higher UV index means a greater risk of skin and eye damage, so it's important to take precautions when the UV index is high.

Here are some UV index categories and how to protect yourself:

* **UV index 0–2**: Low risk of harm. Most people can spend up to an hour in the sun without burning, but people with sensitive skin or children should still be protected.
* **UV index 3–5**: Moderate risk of harm. Wear protective clothing, a wide-brimmed hat, and UV-blocking sunglasses. Stay in the shade near midday.
* **UV index 6–7**: High risk of harm. Reduce time in the sun between 10 AM and 4 PM.
* **UV index 8–10**: Very high risk of harm. Take extra precautions because unprotected skin and eyes can burn quickly.
* **UV index 11 or more**: Extreme risk of harm. Try to avoid sun exposure between 10 AM and 4 PM.

**Wind Speed:**

**Estimating Wind Speed**

[ Also, see [estimating wind speed and sea states](https://www.weather.gov/pqr/beaufort) while at sea ]

|  |  |  |  |
| --- | --- | --- | --- |
| **Estimating Wind Speeds with Visual Clues** [ [*printable version .pdf*](https://www.weather.gov/media/pqr/wind/wind.pdf) ] | | | |
| **Beaufort number** | **Description** | **Speed** | **Visual Clues and Damage Effects** |
| **0** | Calm | Calm | Calm wind. Smoke rises vertically with little if any drift. |
| **1** | Light Air | 1 to 3 mph | Direction of wind shown by smoke drift, not by wind vanes. Little if any movement with flags. Wind barely moves tree leaves. |
| **2** | Light Breeze | 4 to 7 mph | Wind felt on face. Leaves rustle and small twigs move. Ordinary wind vanes move. |
| **3** | Gentle Breeze | 8 to 12 mph | Leaves and small twigs in constant motion. Wind blows up dry leaves from the ground. Flags are extended out. |
| **4** | Moderate Breeze | 13 to 18 mph | Wind moves small branches. Wind raises dust and loose paper from the ground and drives them along. |
| **5** | Fresh Breeze | 19 to 24 mph | Large branches and small trees in leaf begin to sway. Crested wavelets form on inland lakes and large rivers. |
| **6** | Strong Breeze | 25 to 31 mph | Large branches in continuous motion. Whistling sounds heard in overhead or nearby power and telephone lines. Umbrellas used with difficulty. |
| **7** | Near Gale | 32 to 38 mph | Whole trees in motion. Inconvenience felt when walking against the wind. |
| **8** | Gale | 39 to 46 mph | Wind breaks twigs and small branches. Wind generally impedes walking. |
| **9** | Strong Gale | 47 to 54 mph | Structural damage occurs, such as chimney covers, roofing tiles blown off, and television antennas damaged. Ground is littered with many small twigs and broken branches. |
| **10** | Whole Gale | 55 to 63 mph | Considerable structural damage occurs, especially on roofs. Small trees may be blown over and uprooted. |
| **11** | Storm Force | 64 to 75 mph | Widespread damage occurs. Larger trees blown over and uprooted. |
| **12** | Hurricane Force | over 75 mph | Severe and extensive damage. Roofs can be peeled off. Windows broken. Trees uprooted. RVs and small mobile homes overturned. Moving automobiles can be pushed off the roadways. |