



EVAPORATION

We see it every day: pool owners calling frantically because their pool is losing more than they ever remember.

Hold tight! It may not be a true leak but simple evaporation. Our experience shows that a pool with no heater and no waterfalls or water features can lose as much as a quarter inch per day. **That's more than one and a half inches in a week. Of course, this is the high side of evaporation and most pools will lose less than this, but it's still a very reasonable and useful guideline.**

What causes pool water evaporation?

There are three main factors for evaporation: Exposure, temperature and humidity levels.

- **Exposure.** The more your pool is exposed to the sun and wind, the more evaporation you'll see. A pool surrounded by a solid fence, thick trees or a structure will evaporate less than a pool that's facing an open sky with no surround. A pool that is next to the ocean/or lake, a golf course or other large piece of land will evaporate more than a pool that is not.

- **Temperature.** Throughout our pool season, we sometimes see a significant contrast between the high and low temperatures from day to night, sometimes excess of 25-50 degrees. This allows your pool to heat up during the day and evaporate all night. In fact, if the sun is down and you turn on your pool light, you'll likely see a mist above the pool. This is the water evaporating and it does this all night, every night.

- **Humidity.** High humidity equals very low evaporation, whereas low humidity equals high evaporation. The air is like a towel or a sponge: The drier the air is, the more water it can hold thus increasing the evaporation rates from your pool.

These factors vary greatly in different parts of the country, as well as, from season to season within those parts. For example, Arizona summers are dry, whereas between daily showers and 100 percent humidity, Florida summers are wet. Therefore, evaporation is high during an Arizona summer, but very low during a Florida summer. New England, hosting 4 very distinct seasons has the best of both humid and dry climates during its standard 5month pool season. Sometimes New England can even experience this change within the same day. Hot days and cool nights are the primary factor in water loss due to evaporation in New England.

TYPICAL EVAPORATION:

A quarter inch of water loss per day is most likely evaporation. The evaporation rate in your area will depend on temperature contrast between day and night, humidity, sunlight intensity, barometric pressure, wind and the level of activity in the pool or spa.

THE BUCKET TEST DETERMINE IF YOUR WATER LOSS IS CAUSED BY EVAPORATION OR A LEAK

1. *Bring the pool water to normal level.*
2. *Fill a 5-gallon bucket with pool water to approximately 2" from the top of the bucket.*
3. *Place the bucket on the first or second step of the pool. Ensure the bucket is immersed in the pool at least five inches.*
4. *Mark the water level inside the bucket with a piece of duct tape. (Make sure the bottom edge of the tape is even with the water level.)*
5. *Shut off the pump and auto fill and wait 5 minutes for the pool water to settle.*
6. *Mark the pool water level on the side of the pool wall near the bucket enough to snap a picture with both marks in it.*
7. *Resume normal pool pump operation.*
8. *After 24 hours, compare the two water levels. If the pool water (outside mark) goes down more than the bucket's water level, there is probably a leak. If levels are the same, only evaporation has occurred.*
In case of rain, repeat the bucket test. Expect water loss from normal evaporation. Test is invalid after 24 hours.
9. *Snap another picture of the marks on day 2 and send both to New England Dive if loss is suspected for records.*