

How To Drain A Pool

Introduction: Why Draining Your Pool is a Necessary Task

Owning a swimming pool brings endless hours of enjoyment, but like every major home feature, it requires periodic maintenance. One of the most common yet misunderstood tasks is knowing **how to drain a pool** correctly. Whether you need to lower the water level for winterizing, remove algae-stained water, make structural repairs, or replace old liner, draining is a job that demands careful planning. Rushing this process can lead to costly damage, such as cracked plaster, popped liners, or even an empty shell rising from the ground due to hydrostatic pressure. This guide will walk you through every essential step, ensuring you drain your pool safely and efficiently.

Reasons You Might Need to Drain Your Pool

Before you start pulling out hoses and pumps, it is worth understanding why a full or partial drain is necessary. Not every situation calls for removing all the water. Common reasons include:

- **High chemical levels:** When stabilizer (cyanuric acid) or calcium hardness becomes too concentrated, draining and

refilling may be the only solution.

- **Persistent algae:** Severe green or black algae blooms can be impossible to eliminate with chemicals alone. Draining gives you a fresh start.
- **Structural or plaster repairs:** Cracks, tile work, or resurfacing require a dry surface.
- **Liner replacement:** A torn or aging vinyl liner must be removed and replaced; the pool must be empty for proper installation.
- **Water contamination:** Animals, flooding, or accidental chemical dumps can make the water unsafe.
- **Winterizing in freezing climates:** Lowering the water level below the skimmer and return lines prevents ice damage.

Each of these scenarios demands a slightly different approach, but the fundamental principles of **how to drain a pool** remain consistent.

Preparing to Drain Your Pool

Preparation is the most critical phase. Overlooking simple details can turn a routine task into an expensive mistake. Follow these preparatory steps before releasing any water.

Check Local Regulations

Many municipalities have strict rules about where pool water can be discharged. Chlorinated water, saltwater, or water with high chemical content can harm landscaping, storm drains, or local waterways. You may need to dechlorinate the water first or discharge into a sanitary sewer cleanout. Contact your local water authority or environmental agency to avoid fines and environmental damage.

Assess Your Pool Type

Different pool types react differently to being emptied. Concrete and gunite pools are heavy and, when empty, can be pushed upward by groundwater (hydrostatic pressure) unless you install hydrostatic relief valves or drill weep holes. Vinyl liner pools risk the liner shifting or tearing if the water is removed too quickly. Fiberglass pools are prone to buckling or cracking if the surrounding groundwater pressure is high. Knowing your pool type will guide your drainage speed and method.

Gather the Right Equipment

You have several options for moving water. The most common include:

- **Submersible pump:** Affordable and widely available, these pumps sit on the pool floor and push water through a discharge hose. They work well for both partial and full drains.
- **Cover pump or utility pump:** Often used for draining pool covers, these can also be used in the pool but may have lower flow rates.
- **Gravity drain via garden hose:** A simple method requiring a long hose and a lower discharge point. However, this is very

slow and only works if your pool water level is higher than the discharge end.

- **Main drain (if available):** Some pools have a built-in main drain at the deepest point. You can use your pool pump (for partial drains) by switching the valve to waste setting if you have a multiport valve. This is fast but should never be used to empty the entire pool while the pump is running — running a pump dry will destroy it.

You will also need a sump hose, extension cord (if using electric pump), a garden hose for cleanup, and a bucket or wet/dry vac for the last inch of water.

Turn Off Power and Gas

Safety first. Turn off the pool pump, heater, and any automatic chlorinator. If you are draining below the skimmer, water can no longer circulate, and running equipment dry will cause overheating and failure. Also disconnect or cap the gas line if you suspect any chance of flooding the heater.

Step-by-Step Guide: How to Drain a Pool

Now that you are prepared, follow these steps methodically. I will cover both partial and full draining scenarios.

Step 1: Decide How Much Water to Remove

For winterizing, you only need to lower the water level 12-18 inches below the skimmer. For a full drain, you must remove 100% of the water. Be sure you have a reason for a complete drain — partial drains

are safer and more common.

Step 2: Dechlorinate or Neutralize the Water

If your pool has high chlorine or salt levels, treat the water with a dechlorinating product (sodium thiosulfate) a day before draining. This protects your lawn, plants, and local drainage systems. Let the water sit and test to confirm chlorine levels are near zero.

Step 3: Position the Submersible Pump

Place your pump on a flat surface at the pool's deepest point. If you have an uneven floor, set it on a small brick or paver to keep it out of sediment. Attach the discharge hose and route it to the approved drainage location (e.g., dry well, street gutter, or sewer cleanout). Ensure the hose has a steady downward slope and is not kinked. Plug the pump into a GFCI-protected outlet.

Step 4: Begin Pumping Slowly

Start the pump and observe the water flow. For concrete pools, a slow drain (around 1-2 feet per day) is safer to allow the ground to adjust gradually. Vinyl and fiberglass pools can be drained at a moderate rate — but never leave the pump unattended. Monitor the water level, especially if you are draining below return lines. If you notice any cracking sounds or unusual movement, stop immediately and consult a professional.

Step 5: Manage the Final Inches

When the water is too shallow for the submersible pump to operate, you will need to remove the last inch or two manually. Use a wet/dry

vacuum or a bucket and sponge. This is also a good time to inspect the pool floor for cracks, staining, or debris.

Step 6: Hydrostatic Pressure Precautions (For In-Ground Pools)

If your pool is in-ground and you are draining it fully, be prepared for the possibility of the pool “floating” out of the ground. To relieve hydrostatic pressure, you may need to:

- Install or open hydrostatic relief valves (often located at the main drain).
- Drill small weep holes in the bottom of the pool (if you plan to resurface anyway).
- Pump groundwater out from around the pool if you have a dewatering well.
- Drain in stages — remove a third, wait a day, remove another third, and so on.

If the water table is high, consult a pool professional before starting.

Alternative Drainage Methods

Using the Pool Pump and Filter in “Waste” Mode

If your filter has a multiport valve with a “waste” (or “drain”) setting, you can use the pool pump to expedite draining. This works well for partial drains. Connect a backwash hose to the waste port, set the valve to waste, and turn on the pump. **Never run the pump dry** — once the water level drops below the skimmer, you must turn it off or you will burn out the pump seal and motor. This method is not

recommended for full drains because you cannot pump the last few feet of water without damaging the pump.

Gravity Draining with a Garden Hose

If you have a downhill area that is lower than the pool water level, a gravity siphon can work. Submerge one end of a garden hose until all air is purged, then quickly pull it out and drop it lower than the pool surface. Water will flow by gravity. This is slow but gentle and uses no electricity. It works best for small amounts of water, such as lowering the level for winterizing.

Safety Tips and Common Mistakes

- **Never drain a pool during heavy rain:** The ground will be saturated, increasing hydrostatic pressure and the risk of the pool popping out.
- **Don't drain an above-ground pool without bracing:** The sides can collapse inward if the water is removed. For above-ground pools, only partially drain unless the structure is fully supported.
- **Avoid draining directly onto your lawn:** Even dechlorinated water can kill grass if dumped in one spot. Divert the hose to a drainage area.
- **Never leave a submersible pump running overnight unattended:** A failure could cause either flooding or a completely empty pool that is then damaged by groundwater.
- **Watch for wildlife:** Frogs, snakes, and small animals can fall into an empty pool. Provide an escape ramp if you plan to leave the pool empty for a while.

What to Do After Draining

Once the water is gone, your work is not finished. The empty pool offers a rare opportunity to do deep cleaning and maintenance.

Clean the Pool Surface

Scrub the walls and floor with a pool cleaner and a stiff brush to remove algae, calcium deposits, and stubborn stains. Rinse thoroughly and vacuum up debris.

Inspect and Repair

Look for cracks in plaster or gunite, loose tiles, damaged fittings, and weak spots in vinyl liners. This is the best time to patch or resurface.

Check and Service Equipment

Inspect the pump, filter, heater, and plumbing lines. Replace worn gaskets, clean the impeller, and consider a routine tune-up before refilling.

Refilling Your Pool

When you are ready to refill, use a hose with a flow reducer to avoid disturbing the floor or liner. Add water slowly, especially for vinyl pools, to prevent wrinkles. Start the pump as soon as the water level covers the skimmer. Then treat the new water with a start-up chemical kit (balancing pH, alkalinity, calcium, and adding a shock treatment).

When to Call a Professional

While many pool owners can drain their pool themselves, certain situations demand expert help: high groundwater tables, cracked pool shells, complex plumbing, or if you suspect the pool is lifting. Likewise, if you are unsure about hydrostatic pressure or local drainage laws, a licensed pool service can save you from a disastrous mistake. The cost of professional draining is often far lower than repairing a popped fiberglass pool or a cracked concrete shell.

Conclusion

Learning **how to drain a pool** correctly is one of the most valuable skills for any pool owner. Whether you are facing a partial drain for winterizing or a full drain for major repairs, thorough preparation, careful execution, and respect for safety guidelines will protect your investment. Always choose the right pump, check local ordinances, and monitor the process closely. And remember — when in doubt, slow down and consult a professional. A well-drained pool is the first step toward a beautiful, healthy swim season. Take your time, follow the steps outlined here, and you will avoid the common pitfalls that lead to costly damage. Your pool will thank you for years to come.