

# Water Security for Beginners

Storage, Filtration & Testing - Your Practical Workbook

*By DedoVerdePT | SelfSufficient.cloud*

*Europe-first . Metric units . No fear, no hype*

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## 1. Why Water Comes First

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Before food, before energy, before shelter improvements - water. An adult needs 2-3L daily just to survive. A household of four needs 8-12L for drinking alone. Add cooking, hygiene, pets, and plants - you are looking at 50-100L per day for reasonable comfort.

Municipal supply is reliable until it is not. Contamination events, infrastructure failures, freezing pipes, drought restrictions, and price spikes all happen. This guide helps you build layered water security: storage first, then filtration, then alternative sources.

## 2. The Water Security Layers

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Layer 1 - Storage (this week): 2 weeks drinking water per person

Layer 2 - Filtration (this month): Gravity + portable options

Layer 3 - Alternative Sources (this season): Rainwater + local sources

Layer 4 - Resilience (ongoing): Testing + rotation + community

Do not skip layers. A filter without storage is useless when the tap runs dry. Storage without filtration is risky if supply is contaminated.

### 3. Layer 1: Water Storage

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#### How Much Do You Need?

Minimum: 2L per person per day x 14 days = 28L per person.

Comfortable: 4L per person per day x 14 days = 56L per person.

Family of 4 (comfortable): 224L total.

Worksheet - Calculate Your Household Needs:

Household Member	Daily Need (L)	Days	Total (L)
<b>TOTAL HOUSEHOLD STORAGE NEEDED</b>			

#### Container Comparison

Rule: No single container larger than you can move when full (20-25kg max). Food-grade only (HDPE #2, PET #1). Label with fill date. Rotate every 6-12 months.

##### Scepter 10L Military Can (BPA-free)

Best for: Durable, stackable, NATO standard, long-term storage

Not for: Daily kitchen use (narrow opening), very tight spaces

EUR 28 | \$30 | Buy: [selfsufficient.cloud/go/water-container/](https://selfsufficient.cloud/go/water-container/)

##### WaterStorageCube 20L Collapsible

Best for: Space-saving when empty, carry handle, wide mouth

Not for: Long-term outdoor exposure, rodent-prone areas

EUR 22 | \$24 | Buy: [selfsufficient.cloud/go/water-containers/](https://selfsufficient.cloud/go/water-containers/)

##### Reliance Aqua-Tainer 26L Rigid with Spigot

Best for: Large volume, stackable, spigot included, good value

Not for: Moving when full (heavy), small apartments

EUR 35 | \$38 | Buy: [selfsufficient.cloud/go/water-storage/](https://selfsufficient.cloud/go/water-storage/)

##### Food-Grade 200L IBC Tote (Used, Cleaned)

Best for: Bulk storage, garden/irrigation, community scale

Not for: Indoor, moving, drinking water without extra filtration

EUR 80 | \$85 | Buy: [selfsufficient.cloud/go/water-storage/](https://selfsufficient.cloud/go/water-storage/)

## 4. Your Storage Plan Worksheet

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Fill in your container inventory:

Container Type	Capacity (L)	Qty	Total (L)	Location	Fill Date	Next Rotation

Rotation Schedule (set calendar reminders):

Container	Last Filled	Rotate By	Notes

## 5. Layer 2: Filtration

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### Know What You are Filtering For

Sediment (sand, rust, particles) - pre-filter, cloth, ceramic

Chlorine/chemicals (municipal) - activated carbon

Bacteria/protozoa (wild water) - ceramic, hollow fiber, UV, boiling

Viruses (rare in EU, common in tropics) - UV, chemical, hollow fiber 0.02 micron

Heavy metals/chemicals (industrial/agricultural) - specialized carbon, RO, distillation

No single filter does everything. Layer: Pre-filter > Carbon > Fine filter/UV

### Filtration Options Comparison

#### LifeStraw Personal (Hollow Fiber 0.2 micron)

Best for: Emergency personal use, hiking, backup in bag

Not for: Daily household use, groups, viruses, chemicals

EUR 18 | \$20 | Buy: [selfsufficient.cloud/go/water-filter/](https://selfsufficient.cloud/go/water-filter/)

#### Sawyer Mini + Bucket Kit (0.1 micron, 100k gal)

Best for: Family emergency, gravity feed, high volume, long life

Not for: Viruses, chemicals, heavy metals, daily kitchen use

EUR 35 | \$38 | Buy: [selfsufficient.cloud/go/water-filter/](https://selfsufficient.cloud/go/water-filter/)

#### Berkey Big Berkey (Black Berkey Elements)

Best for: Daily countertop, removes 200+ contaminants, fluoride optional

Not for: Portable, renters with no counter space, budget tight

EUR 280 | \$300 | Buy: [selfsufficient.cloud/go/water-filter/](https://selfsufficient.cloud/go/water-filter/)

#### Katadyn Pocket Filter (Ceramic 0.2 micron, 50k L)

Best for: Expedition grade, field cleanable, 20yr warranty, military spec

Not for: Daily high-volume, budget, viruses without chemical treatment

EUR 280 | \$300 | Buy: [selfsufficient.cloud/go/water-filter/](https://selfsufficient.cloud/go/water-filter/)

#### Gravity Bag + Carbon Block (DIY 2-stage)

Best for: Budget, customizable, removes chlorine + sediment + bacteria

Not for: Viruses, high volume daily, certified removal claims

EUR 45 | \$50 | Buy: [selfsufficient.cloud/go/water-filter/](https://selfsufficient.cloud/go/water-filter/)

## 6. Layer 3: Testing - Trust But Verify

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Test your stored water every rotation. Test new filters after installation. Test rainwater before drinking. Test if taste/smell/color changes.

### Verify 17-in-1 Test Strips (100 strips)

Best for: Hardness, pH, chlorine, lead, iron, copper, bacteria, nitrate, nitrite

Not for: Certified lab results for legal compliance

EUR 20 | \$22 | Buy: [selfsufficient.cloud/go/water-testing-kit/](https://selfsufficient.cloud/go/water-testing-kit/)

### Health Metric Digital TDS/EC/Temp Meter

Best for: Total dissolved solids, electrical conductivity, temperature

Not for: Bacteria, specific chemicals, certified results

**EUR 28 | \$30 | Buy: [selfsufficient.cloud/go/water-testing-kit/](https://selfsufficient.cloud/go/water-testing-kit/)**

### **Safe Home Ultimate Drinking Water Test Kit (Lab)**

Best for: EPA-certified lab analysis: 200+ contaminants, detailed report

Not for: Quick field checks, ongoing monitoring

**EUR 85 | \$90 | Buy: [selfsufficient.cloud/go/water-testing-kit/](https://selfsufficient.cloud/go/water-testing-kit/)**

## 7. Layer 4: Rainwater Harvesting (Apartment Friendly)

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Even a balcony can collect meaningful water. 1m<sup>2</sup> roof = 1L per 1mm rain. A 2m<sup>2</sup> balcony in Lisbon (600mm/yr) = 1,200L/year potential.

Use for: Plants (best), toilet flushing, cleaning, laundry (with filtration). NOT for drinking without: First-flush diverter + filtration + testing.

### Balcony/Small-Scale Setup

#### Collapsible Rain Barrel 100-200L

Best for: Balcony/patio, connects to downspout diverter, folds flat

Not for: Permanent installation, drinking without treatment

EUR 45 | \$50 | Buy: [selfsufficient.cloud/go/water-storage/](https://selfsufficient.cloud/go/water-storage/)

#### Simple Downspout Diverter Kit

Best for: Directs first flush away, then fills barrel, easy install

Not for: Complex roof systems, underground drainage only

EUR 25 | \$28 | Buy: [selfsufficient.cloud/go/water-storage/](https://selfsufficient.cloud/go/water-storage/)

#### Fine Mesh Leaf Guard / First Flush Diverter

Best for: Prevents debris, improves water quality, low maintenance

Not for: Heavy pollen areas without additional screening

EUR 15 | \$18 | Buy: [selfsufficient.cloud/go/water-storage/](https://selfsufficient.cloud/go/water-storage/)

## 8. Emergency Scenarios - Quick Reference

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Print this page and keep with your water supplies.

### Municipal boil notice

Use stored water for drinking/cooking. Filter + boil rainwater if stored out.

### Pipe burst / supply cut

Live on stored water. 28L/person = 7-14 days. Prioritize drinking > cooking > hygiene.

### Contamination event (chemical)

Do NOT boil (concentrates chemicals). Use stored water. Filter rated for chemicals (carbon + RO).

### Freeze / winter storm

Prevent: insulate pipes, drip taps. If frozen: stored water + melt snow (filter + boil).

### Long-term grid down

Rainwater + filtration + community sources. Rotate stores. Test weekly.

## 9. Your Water Security Checklist

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Track your progress. Tick when done.

- Calculate household storage need (Worksheet p.3)
- Buy containers to meet 14-day minimum
- Fill, label (date), and store containers
- Set calendar reminders for 6-month rotation
- Choose primary filtration (household)
- Choose backup filtration (portable/emergency)
- Install and test primary filter
- Buy water test strips (100-strip pack)
- Test stored water baseline
- Test filtered water
- Set up rainwater collection (if feasible)
- Install first-flush diverter on rainwater
- Test rainwater before non-potable use
- Identify 3 local alternative water sources
- Print emergency scenarios page
- Share plan with household members

## Next Steps

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1. Complete your storage calculation today. Order containers this week.
2. Read the full "Water First" article:  
[selfsufficient.cloud/water-first-why-water-matters-before-almost-everything-else/](https://selfsufficient.cloud/water-first-why-water-matters-before-almost-everything-else/)
3. Visit Recommended Gear for updated filter comparisons:  
[selfsufficient.cloud/recommended-gear/](https://selfsufficient.cloud/recommended-gear/)
4. Next guide in series:
  - Balcony & Small-Space Growing Planner
  - Energy Audit Workbook
  - The "What Not to Buy" Guide

Water security is not paranoia. It is competence.

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