

shows

Glass is not equally clean - and PET is worse Microplastics in PET, glass, tap water and reverse osmosis - who really delivers pure water? 1. German study (2023) Reusable PET bottles: up to 27 574 ...

Mehrweg-PET, Glas oder Umkehrosmose – wer liefert wirklich reines Wasser?

1 Deutsche Studie (2023)

- Mehrweg-PET-Flaschen: bis zu **27.574** Mikroplastik-Partikel/Liter (1–6 µm!)
- Einweg-PET: **44–148** P/L
- Glasflaschen: ca. **50** P/L

Überraschung: Mehrweg ist am stärksten belastet.

2 Studie „Glas vs PET“

- Glasflaschen: **8,65** P/L (20–100 µm)
- PET: **5,09** P/L
- rPET: **3,31** P/L

> **Ursache:** Kunststoffverschlüsse und Rückstände aus industriellen Reinigungsmitteln!

> Glas = nicht gleich kunststofffrei.

3 Indische Studie – weltweit untersucht

- Konzentrationen schwanken stark: max. **628** P/L, globaler Durchschnitt ca. **5** P/L
- **83 %** aller Proben enthalten Mikroplastik – besonders in den USA (>90 % Belastung)
- Europäisches Leitungswasser liegt typischerweise bei ca. **4.000** Partikeln/Jahr (1 L/Tag-Konsum)

Umkehrosmose entfernt Partikel aller Größen – echte Reinheit kennt keine Verpackung.

Quellen kompakt: DOI 16,1002/lemi.20235256; DOI 10,1038/DSEW0012A; DOI 10,1016/j.chemosphere.2022.136337; PLOS One (2020)

Glass is not equally clean - and PET is worse

Microplastics in PET, glass, tap water and reverse osmosis - who really delivers pure water?

1. German study (2023) Reusable PET bottles: up to 27 574 microplastic particles/liter (1-6



µm!) Single-use PET: 44 - 148 P/L Glass bottles: approx. 50 P/L Surprise: Reusable is most heavily contaminated. Source

2. Study "Glass vs PET" Glass bottles: 8.65 P/L (20-100 µm) PET: 5.09 P/L rPET*: 3.31 P/L Cause: Plastic closures and residues from industrial cleaning agents! Glass = not necessarily plastic-free. Source

3. Indian study (2022) Local brands: 212 ± 100 P/L (>100 µm) National brands: 72 ± 36 P/L Children ingest up to 5 186 particles/kg body weight/year when extrapolated! Source

4. Tap water - examined worldwide Concentrations vary widely: max. 628 P/L, global average approx. 5 P/L 83 % of all samples contain microplastics - especially in the USA (> 90 % contamination) European tap water typically at approx. 4 000 particles/year (at 1 L/day consumption) Source

We conclude: * Bottled water (PET/glass) releases microplastics in considerable quantities - whether reusable PET, closure plastic or cleaning residues. * Tap water contains less microplastics, but consistently, ranging from 0 to 600 P/L depending on region. * Reverse osmosis remains the safest solution: removes particles of all sizes - from nanoparticles through fibers (fiber-like microplastic particles) to fragments and cleaning residues.

For true purity, it doesn't matter where your water comes from - but what is no longer in it. Reverse osmosis brings clarity where bottles cannot. A high-quality reverse osmosis filter removes not only microplastics, heavy metals, drug and medication residues - it also ensures that your water is restructured and energized. For everyone who values clean, toxin-free and cell-available water.

*rPET = recycled PET, which has been reprocessed from already used PET products (e.g. used bottles). rPET is often advertised as a more environmentally friendly alternative because it reduces waste. However, studies show: rPET also releases microplastics - and sometimes even more than newly manufactured PET, depending on the manufacturing and cleaning process.

further valuable sources on this topic: [1]: "Microplastics in tap water: Study provides important advice for home." [2]: "(PDF) Microplastics in the environment, status report 2019 - Umweltbundesamt.at" [3]: "(PDF) Microplastic in Drinking Water: A Pilot Study - ResearchGate" [4]: "New study: Tap water worldwide contains plastic - Utopia.de" [5]: "Microplastics and nanoplastics in drinking water and beverages" [6]: "Microplastic contamination of drinking water: A systematic review" [7]: "Plastic Fibers Are Found in 83% of the World's Tap Water, a



New Study Reveals" [8]: "What happens to microplastics in our body?"

It's good.

to be tru.