

## The Ocean: a gift of health

Back in the 1750s, doctors observed that being near the Ocean appeared to have a positive effect on human health. This thought was later **scientifically proven**, concluding that living (or being) next to the Ocean entailed many health benefits: people grew ill less often and experienced lower mental distress than those living inland. People from disadvantaged backgrounds benefit the most from living close to the sea. However, these benefits are not uniquely exclusive to people living near the coast; **just having an Ocean view can promote a reduced heart rate and improve one's mood!**

Being close to the Ocean is associated with a more active lifestyle, with higher levels of physical activity. **Surfing**, for example, **is associated with a reduced risk of dementia and cardiovascular disease.**

In a study completed in 2016, **the health benefits of water-based recreation were estimated to save up to approximately €200 million per year in healthcare in the UK alone.** Sailing had the largest impact overall (as it is practiced for more years, as opposed to other water sports), and was estimated to save more than €63 million in healthcare!




## However... it can also be dangerous

Bathing water quality is a major concern for coastal communities. To avoid health problems, water is analysed to detect the concentration of different types of pollutants and bacteria to prevent potential problems. Despite these efforts, it has been confirmed that, even in cases when water quality is good, **bathers suffer a greater risk of gastrointestinal, respiratory, ear and eye problems than non-bathers.**

**Why is coastal seawater a potential cause for illness?** Mainly because of human activities. In developed areas, coastal waters receive many anthropogenic (man-made) inputs from **sewage and runoff water**: trash, human and animal waste, fertilizers, pesticides, plastics, oil... These materials are responsible for altering water conditions, and **tend to carry pathogen organisms** (bacteria, viruses and parasites).


### URBAN SEWAGE MOSTLY CONSISTS OF:


 GREYWATER - FROM SHOWERS, SINKS, DISHWASHERS, ETC.


 BLACKWATER - TOILET WATER WITH SOAPS/DETERGENTS, TOILET PAPER AND ALL THE WASTE THAT PEOPLE FLUSH AWAY (AND SHOULDN'T!).

Wastewater treatment plants treat this sewage and, after different processes, produce a liquid and solid (sludge) part, which is suitable for discharge into the environment or for reuse as compost. This treatment is mandatory in developed countries. However, this treatment is sometimes neglected, and the **sewage goes directly into the environment.**

### WHY MAY SEWAGE WATER NOT BE TREATED?

 **BAD PLANNING:** SOME WATER TREATMENT PLANTS DO NOT HAVE THE CAPACITY TO TREAT THE AMOUNT OF SEWAGE THAT IS PRODUCED. THIS IS ESPECIALLY SO IN **TOURISTIC AREAS DURING THE HIGH SEASON**, WHEN THE LOCAL POPULATION MULTIPLIES FOR A FEW WEEKS.

 **PERIODS OF HEAVY RAIN:** SEWERS COLLECT A GREAT DEAL OF WATER, AND **TREATMENT PLANTS OVERFLOW AND COLLAPSE.** THEY ARE FORCED TO OPEN THE GATES AND RELEASE THE UNTREATED WATER.

 **WASTE THAT IS FLUSHED DOWN THE TOILET:** PEOPLE THINK THAT TOILETS ARE TRASH BINS AND THROW ALL SORTS OF WASTE INTO THEM. HOWEVER, SOME WASTE, ESPECIALLY **WIPES, CLOG THE PIPES AND FILTERS** OF THE TREATMENT PLANTS, ALTERING THEIR OPERATION AND EVEN PROVOKING THEIR COLLAPSE.

