

Where to 'Go' in the Great Outdoors - Human Sanitation Advice for Paddlers from the Scottish Canoe Association

The subject of human sanitation in the outdoors has been neglected over the years by many of the books and manuals that explain other essential outdoor skills. It has in many ways been a taboo subject, which is a pity because if done carelessly, the consequences of 'doing it wrong' can be very damaging. This advice is considered by the Scottish Canoe Association to reflect the latest thinking on what is good practice, and is based on a wide range of information from the UK and abroad.

The very nature of canoeing and kayaking means that participants spend a lot of their time either on or beside water. The enjoyment of the activity depends on water being clean and as far as possible free from risks to health. That is why it is vital that paddlers don't pollute the water they paddle on and camp beside when they answer the call of nature.

The dangers to be aware of are:

- Human excrement getting into and contaminating water courses;
- Other people coming into contact with human excrement;
- Animals eating, rolling in, and dispersing human excrement; and
- The visual pollution and smell.

Protecting and Using Fresh Water

- Remember that a burn (stream) may be the water supply for a remote house.
- Make sure you are at least 30 metres away from any running water when you defecate.
- When camping, always take drinking water from above your site, and walk downhill and away from water, to defecate.
- When taking drinking water from a burn always check for at least 30 metres above the point of extraction for contamination.
- Although urine is less harmful than excrement, its smell is unpleasant. Try to follow the same standards as recommended for defecating. Avoid urinating near fresh water.
- Use a biodegradable soap, but don't use it directly in the burn.

Options for the Disposal of Excrement

This advice describes the following four methods for disposing of human excrement in the outdoors:

- Burial
- Smearing
- Disposal in the sea
- Carrying out

There is no best solution to fit all situations. Even if you are an advocate of carrying out you won't always have the necessary equipment with you. The important point is knowing about the different methods and developing the ability to judge which is best in a given set of circumstances. Remoteness, proximity to fresh water and the likelihood of other people visiting the same place are factors to take into consideration when deciding which method to use.

Be Discreet

- Be discreet. Find a place that is private for you, and which also respects the sensitivities of others who may live, work or be taking their recreation in the area.
- Defecate at least 50 metres from paths and 200 metres from huts and bothies.

Burial and Smearing of Human Excrement

- Excrement decomposes faster if covered with soil and leaf mould. This also discourages animals from digging it up. Badgers and dogs love to roll in it, and even eat it!
- Whenever possible, dig a 15 centimetre (6") deep hole and bury your excrement. Carry a hand trowel for this purpose. Most garden centres and DIY stores stock them.
- When digging a hole is impossible, or not appropriate for the environment, an alternative and effective method is to spread your excrement in a very discrete place, using a trowel or small rock, and then cover it with soil and/or vegetation. Spreading as thinly as possible helps the natural breakdown of the excrement.
- Squashing excrement under a boulder will slow the decomposition process and should never be done. If other techniques can't be used then a final option is to cover the excrement with a rock in such a way that the rock and excrement aren't in contact. This allows air to circulate and thereby enables decomposition.

- Avoid digging or spreading in sensitive vegetation, such as on machair. Be aware of sensitive sites and avoid using them as a toilet.
- When snow lies on the ground, remove it and, dig down into the soil and bury as per the guidance above. Burying your excrement in the snow is only temporary until the snow melts. Carrying your excrement out is the best method when there is snow and frost on the ground.

Salt Water Advice for Sea Kayakers

- The scale of the sea is so colossal that it is able to cope with human waste in a way that fresh water bodies are not. However, there are dangers to be aware of and it is important to follow a few simple guidelines to ensure this practice is done correctly.
- It is usually considered acceptable to use the rising and falling tides to flush away human excrement, but you should always think about the best place to do this and think about the possible negative consequences if you were to use the wrong place.
- When defecating by the sea it is good practice to get as far away as possible from local houses, as well as your camping spot and colleagues.
- Avoid defecating in enclosed bays where the tide may wash your excrement onto a beach rather than flushing it out to sea.
- Defecate directly into the sea; or onto a rock and then throw the rock into the sea; or when the tide is rising, onto rocks or the beach so that the tide will soon rise above the excrement and carry it away. Take care not to over balance and fall into the sea!
- It is advisable at popular camp spots to take extra care over where you defecate; paying particular attention to ensuring your excrement will be washed out to sea. In these circumstances it may be preferable to bury your excrement on land or to carry it out.
- Avoid disposing of excrement at sea if you are aware of any shell fish farming in the vicinity. Norovirus and Cryptosporidium can be absorbed by filter feeders such as oysters.
- It is preferable to urinate below the high water mark at all stages of the tide.
- The usual rules apply for toilet paper and sanitary items. These should never be deposited in the sea.
- When camping with a group of paddlers it is wise to agree the boundaries for toilet visits.

Carry Out Techniques

Back country travellers in certain areas of North America are encouraged, and sometimes required, to carry out all their excrement when they leave a wilderness area. Britain has lagged behind North America in embracing this practice, but carry out techniques in Scotland have been pioneered in recent years by the likes of Glenmore Lodge and the Cairngorms Ranger Service.

At a time when dog owners have become accustomed to using poop scoops it is fitting that outdoor people like canoeists begin to regard carry out techniques as the most appropriate option in certain situations. With the right equipment and a bit of practise, carrying ones excrement out for disposal back at home is easier than might be envisaged and is the most environmentally sensitive method.

Individual paddlers may develop their own system for carrying out, but the method that works for many is to defecate onto a couple of paper towels; wrap it up into the towel; place the towel into a plastic bag; tie the plastic bag and place in a tight sealing plastic container, such as a small BDH bottle.

Back at home the contents of the container can be taken out of the plastic bag & flushed down the toilet, the plastic bag deposited into a domestic waste bin and the container washed out and disinfected ready for the next trip.

It is good practice to clearly mark what the container is for and to keep that bottle, and its lid, for that specific purpose. Close attention to cleanliness is the key to avoiding re-infection when carrying out your excrement for later disposal. The plastic container should be washed in hot soapy water and disinfected with an appropriate disinfectant, before being stored. Make sure you thoroughly wash your hands afterwards.

Other methods for carrying out can be found online and in magazines. American publications such as Sea Kayaker magazine (June 2008) have useful articles on this topic.

Outdoor centres that have a contract with a hygiene company for emptying sanitary towel bins can arrange for the collection of all the excrement bags that have been brought back to the centre.

Toilet Paper

- To avoid having to dispose of toilet paper in the outdoors it is usually possible to use natural materials in place of paper. Grass, moss and seaweed are good natural alternatives.
- If you do use toilet paper then it is best to pack it out in a couple of small plastic bags. Burning toilet paper is not recommended as it is difficult to get it all to burn, plus it is a fire hazard. Burying it is not an option.

- Biodegradable toilet papers do exist, but they still need some time to decompose and the concept of leaving paper behind is not good, so their use has to be seen as less favourable than the options above. If you do wish to use them biodegradable non-bleached toilet rolls can be purchased online. One supplier is www.nigelsecostore.com

Female Sanitary Items

Burying tampons and sanitary towels is not effective because they take a long time to decompose. Animals may also dig them up. Use a secure container, such as a self-seal bag, to carry them out. Putting a used tea bag in the same container can help absorb any smell.

Toilet Provision

- Never miss an opportunity to use a proper toilet.
- Dry or composting toilets are used in remote locations in many other countries and are now being introduced to some of our huts and bothies in Scotland. Where these are found it is important to read any instructions and follow them clearly. If they aren't used properly, they don't function.

General Hygiene

It is essential to wash hands after defecating, even in the outdoors, so ensure you make the effort, particularly before handling food. The consequences of becoming ill in remote areas are more serious than at home.

Communicable Diseases

- *Cryptosporidium*, *Campylobacter*, *E. coli* O157 and *Giardia* are all gut pathogens that can be caught from drinking contaminated water. The numbers of cases are generally low, but it is wise to remember that carelessness could result in one of these debilitating conditions. Drinking water contaminated with *Cryptosporidium* parasites is an internationally recognised risk factor for human illness. Contamination can arise from a variety of sources including oocysts (infectious stage) from infected humans, livestock, and feral animals present in the catchment. Oocysts remain infectious in the environment and water for prolonged periods and are resistant to most disinfectants used to treat drinking water.
- Although the incidence of *Giardia* is relatively low in the UK, the number of reported cases is rising at the time of writing (2008).
- Many paddlers travel to under developed countries each year, and a proportion will be carrying stomach diseases on their return. If you have just returned from the

Indian sub-continent or Andes or Africa, and still have an upset stomach, for the sake of others you will need to take extreme care if you go into the outdoors in this country whilst still infected.

Hot Climates

In overseas countries with hot climates the recommended advice is often to smear excrement as thinly as possible in a discrete place away from where other people are likely to be. The action of the strong sunlight works very quickly to break down the bacteria.

Further Reading

- 'How to Shit in the Woods' by Kathleen Meyer, Ten Speed Press.
- 'Up Shit Creek' by Joe Lindsay, Ten Speed Press.
- 'Camping Healthy - Hygiene for the Outdoors' by Buck Tilton and Rick Bennett, ICS Books.
- 'Sewage Solutions – Answering the Call of Nature' by Nick Grant, Mark Moodie and Chris Weedon, Centre for Alternative Technology Publications.
- 'Lifting the Lid: An Ecological Approach to Toilet Systems' by Peter Harper & Louise Halestrap, Centre for Alternative Technology Publications.

Talk About It

Discussing outdoor sanitation with other people will increase awareness of the issues, and raise standards. So, above all else, do talk to your paddling friends about this issue.

Feedback

If you have any comments on this guidance, or have experience of similar codes or remote toilets from abroad, please let us know. The SCA would like to encourage debate and further research, and see the subject covered in training courses and future editions of canoeing text books. The SCA will continue to collate the results of research projects and, as knowledge of the subject increases will revise this guidance.

This advice has been adapted from the Mountaineering Council of Scotland leaflet "Where to 'Go' in the Great Outdoors" which was first published in 1998.