

# Health & Sanitation



| HISTORYLINKS SCHOOLPACKS |

## Background to 19<sup>th</sup>-century health and sanitation

Many people are aware that during the 19<sup>th</sup> century living conditions in Britain's large industrial cities were absolutely horrific. Living in the slums of London, Liverpool or Glasgow meant a constant struggle to survive. Housing conditions were terrible. Many people lived in overcrowded, damp, poorly ventilated buildings with no private toilet or washing facilities. **Sewage** ran through the streets and polluted the wells from which people collected their drinking water. Not surprisingly disease was widespread in Britain's cities with thousands dying from **cholera**, **typhus** and **typhoid**.



What is less well known, however, is that living conditions in the countryside during this period were not much better. People tend to think that living in the country is much more healthy than living in overcrowded and polluted cities, but this was rarely true in the 19<sup>th</sup> century.

*All water had to be collected by hand from wells which were often polluted with sewage.*

## Dornoch in the early 19<sup>th</sup> century

We know from the town council records that Dornoch was not a particularly pleasant place to live in at this time. Although Dornoch did not suffer from overcrowding or pollution from factories, many of the local inhabitants were living in conditions that were not too different from those that existed in the large towns and cities elsewhere in Scotland.



In the 19<sup>th</sup> century Dornoch was a very different place from the town we know today. The town council had no means of raising money to improve living conditions for the local inhabitants: judging by reports from visitors to the town, Dornoch was a wretched place where poverty was common. There was no industry in the town and most people made a very basic living from the land. Those who had no work depended on charity to survive.

### Housing

Apart from a few public buildings, most of the houses were single-storied and built from rough stone or turf with thatched roofs made from heather.

There were no **sewers** in the town and the houses had no inside toilets.

The houses were often not even weather proof and would have been damp and bitterly cold in the winter.

*Most people lived in damp houses made from turf and shared their space with goats, pigs and hens!*

Human and animal waste was either piled in **middens** on the streets and in peoples' houses, or dumped into the Dornoch burn.

*Pigs roamed the town's streets, sometimes even digging up the graves in the Cathedral cemetery!*



## Disease and ill-health

Not surprisingly, given these conditions, there were frequent outbreaks of disease in the town.

### Smallpox and typhoid

For example, during the 1830s a number of Dornoch's inhabitants were affected by **smallpox** including, in 1835, the prisoners being held in Dornoch's jail. Even as late as 1891 there were four reported cases of **typhoid** (which originated in the school toilets), although all the victims of this particular outbreak eventually recovered.

### Cholera epidemics

Despite the poor state of the town's sanitation, Dornoch managed to escape the worst two epidemics of the 19<sup>th</sup> century. In 1832 and 1848 **cholera** swept through Britain like a tidal wave. Thousands of people died as a result of this terrible water-borne disease, including half the population of the village of Inver in Ross-shire and one-fifth of the inhabitants of nearby Portmahomack.

In 1832 the citizens of Dornoch patrolled the town's boundaries, preventing anyone from an affected area entering the town. This measure proved extremely effective as there are no recorded deaths from the disease in the town's records, although fear of cholera did lead to one unfortunate incident when a man suffering from symptoms similar to those of cholera died and was buried in a lonely grave beyond the town limits.



*Dornoch's 'cholera picket' prevented people from entering the town.*

### Legal measures to improve sanitation

The situation in Dornoch (and elsewhere in Scotland) finally began to improve in the latter half of the 19<sup>th</sup> century, largely as a result of laws passed by the government to help local authorities deal with the problems of poverty, poor health and sanitation.

The Poor Law Amendment (Scotland) Act of 1845 empowered local people to raise money to provide relief for the poor in each parish in Scotland, instead of the less fortunate members of society having to depend on the charity of the church and generous individuals in order to survive.

Many other Acts of Parliament followed allowing the town council to clean up the Dornoch and improve sanitation. In 1890 the town was able to appoint both a medical officer of health and town sanitary inspector. (You can read an extract of the medical officer's first ever report on the sanitary condition of Dornoch in the Source Sheet.)

As a result of this report, it was proposed to introduce a new water and drainage system to Dornoch, the water coming from nearby Loch Lannsaidh. Work proceeded quickly, and on 3 September 1892 the new water supply to the town was turned on at the fountain that still stands on Cathedral Green.

## 20<sup>th</sup>-century developments

Many other improvements took place at this time. It was the hope of the town council that Dornoch could be turned into an attractive tourist destination, particularly as the new golf course was attracting a great deal of attention. From 1898, the presence of Andrew Carnegie at nearby Skibo Castle certainly helped Dornoch's image as a tourist destination for the wealthier classes. Housing was improved, with many locals building second homes to rent out to visitors.



*Dornoch became far more accessible to visitors from all over the United Kingdom in 1902, when the Dornoch Light Railway opened. This branch line ran from Dornoch to the Mound where it connected with the main Highland Railway.*

## Social improvements

Other improvements were made to the appearance of the town during the closing years of the 19<sup>th</sup> century. Street lighting was introduced, the council employed 'scavengers' to clean up the roads on a regular basis, and old and ruinous buildings were demolished and cleared away. By the start of the 20<sup>th</sup> century Dornoch would have been completely unrecognisable to anyone who had lived in the burgh 50 years earlier. Disease and squalor had been wiped out, and Dornoch was seen as a healthy and invigorating holiday destination by many people from all over the United Kingdom.

## Dornoch today

This is still the case today, and Dornoch's popularity as a holiday and golfing resort has spread throughout the world. Changed days indeed from a time when pigs disturbed the dead and raw sewage floated in the burn and ran through the narrow streets and lanes of the town!



*Dornoch attracts up-market tourists in the early 20<sup>th</sup> century.*

## CHOLERA SOURCE SHEET

Dornoch managed to escape the two cholera outbreaks of 1832 and 1848, but thousands of people were not so lucky and were killed by the terrible disease. Here are two descriptions of the effects of cholera:

### Description 1

*The first sign that someone has cholera might be dizziness, ringing in the ears, followed by pins and needles in the arms and legs. The hands and feet get sweaty and when the victim tries to move he is either sick or **purged**. At the first purging, the whole intestines seem to be emptied at once and this is followed by diarrhoea and vomiting. The victim might lose many pints of fluid in a few minutes. The doctor might find the bedclothes soaking and the floor of the bedroom flooded. This loss of fluid causes the skin and fingernails to turn black or blue and make the patient look like a dried prune. Later on the victim will feel sharp pains in his chest. He will start choking and die very soon after.*

### Description 2

*The eyes, surrounded by a dark circle, are completely sunk in the sockets, the whole face is collapsed, the skin is livid...The surface of the skin is covered with cold sweat, the nails are blue and the skin of the hands and feet are corrugated as if they had been long steeped in water...The voice is hollow and unnatural...the suffering of the patient is sometimes excruciating. The patient usually dies after this stage.*



*The body of a cholera victim.*

**SANITATION SOURCE SHEET****Source A:**

From: *The Report of the Committee of Health for Dornoch given on 10 December 1831*

*The Committee has witnessed much wretchedness and distress and even an extreme of poverty and helplessness amounting to an inability in some instances on the part of the people themselves, speedily to remove their accumulated heaps of manure from their dwellings. In many cases the houses are so ill-roofed and thatched as to admit the rain through in every quarter, so that in the present wet season the inhabitants can scarce find a dry corner in which to place their beds . . . This Committee further notes that very many of the inhabitants, widows and old and infirm people are from their poverty most wretchedly ill off for the very necessities of life both as respects clothing, food and fuel.*

**Source B:**

From: *The Medical Officer's Report on the Sanitary Condition of the Burgh given on to Dornoch Town Council on 9 September 1890*

*There is no system of drainage by means of sewers in the Town. The excreta from houses are allowed to soak into the ground near the houses, or in some places are supposed to find their way to cesspools by rough built drains. From a few houses there are pipe drains carrying sewage to the Dornoch Burn at various points, thus polluting a slowly moving stream, and causing unhealthy exhalation from it, especially in warm weather. . . Occasionally, but by no means frequently though, the burn is cleaned out, - that is, the rougher kind of obstructions are lifted on to the edge of the burn, and allowed to remain there, till playful boys throw them in again, instead of being carted away to a refuse heap . . . from all this it will be seen that at present there is no proper means of removing excreta.*

**Source C:**

From: *The Medical Officer's Report on the Sanitary Condition of the Burgh given on to Dornoch Town Council on 9 September 1890*

*[The] Littletown Well is situated at a low point, and always open to surface pollution, and also by a back-flow of water from the almost stagnant burn not many yards off. This is most decidedly a dangerous well at present and is by no means wholesome.*

**Glossary**

**cholera:** *a potentially fatal infection of the small intestine usually caused by water-borne bacteria.*

**excreta:** *human waste*

**midden:** *a dunghill or pile of rubbish*

**purged:** *the bowels emptied (the same effect as taking a very strong laxative, only more so).*

**sewage:** *waste matter carried away in sewers or drains*

**sewer:** *a drain or pipe, usually found underground, used to carry away sewage*

**smallpox:** *a contagious disease causing fever, rashes and blisters which can leave permanent scarring.*

**typhoid (fever):** *an acute infectious disease resulting in high fever, spots and abdominal pain, it is spread by contaminated food or water.*

**typhus:** *another acute infectious disease spread by lice or mites. Symptoms include high fever, skin rash and severe headaches.*

**SANITATION SOURCE QUIZ**

Write your answers on this sheet.

**Look at Source A**

1. What were some of the people living in Dornoch unable to remove quickly from their own houses?

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2. How did the poor quality of the roofs in some houses affect the inhabitants?

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3. What everyday items were the 'old and infirm' unable to afford?

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**Look at Source B**

4. Why was excreta allowed to soak into the ground near people's houses?

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5. Where did some of the sewage from the houses end up?

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6. What problems do you think the lack of sewers caused for the people of Dornoch?

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**Look at Source C**

7. Why was the Littletown Well not situated in a good position?

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8. Why did the Medical officer believe the well was 'dangerous'?

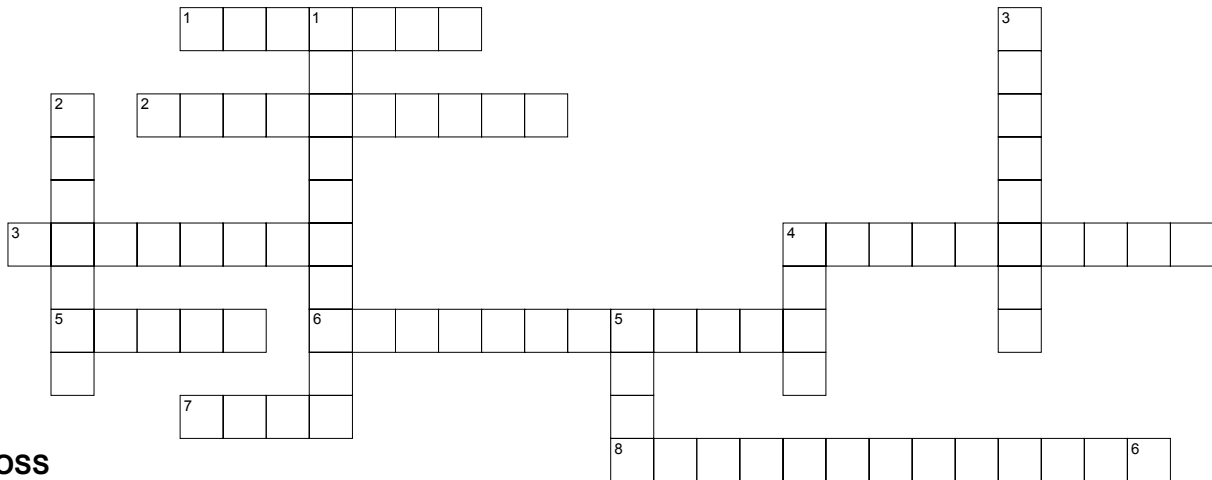
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9. Using all the Sources, write a short report describing health and sanitation in Dornoch during the 19<sup>th</sup> century.



**HEALTH & SANITATION WORD PUZZLE**

Can you solve this puzzle? All the answers are in your worksheet.



**ACROSS**

- 1 Water-borne disease (7)
- 2 Health and \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ (10)
- 3 A system to carry away waste material (8)
- 4 Parliament passed this in 1845 (4,3,3)
- 5 Another name for 4 down (5)
- 6 Too many in one place, helps disease spread (12)
- 7 Scots name for stream (4)
- 8 Where Dornoch's new water supply came from (4,9)
- 9 Pile of rubbish, a mess! (6)
- 10 Dornoch suffered an outbreak of this disease in 1891 (7)

**DOWN**

- 1 Small area of Dornoch with a well (10)
- 2 1 and 10 across are examples of this (7)
- 3 A drinking \_ \_ \_ \_ \_ \_ \_ (there's one on Cathedral Green) (8)
- 4 Snorting pink animals (4)
- 5 You would not feel this way if you drank from one of them (4)
- 6 Sounds like Hi, Jean! (7)
- 7 A tiny disease? (8)

**HEALTH & SANITATION DATES**

What took place on these dates? Find the answers in your worksheet and write them here.

- 1832 \_\_\_\_\_
- 1835 \_\_\_\_\_
- 1845 \_\_\_\_\_
- 1848 \_\_\_\_\_
- 1890 \_\_\_\_\_
- 1892 \_\_\_\_\_
- 1902 \_\_\_\_\_