

# Grave Subsidence

*Whilst the sinkage of the surface of a grave can cause distress to the bereaved, it is a 'natural' phenomenon that affects all cemeteries.*

## Why do Graves Sink?

The excavation of a grave, or any other reasonable size hole, results in the loosening of the excavated material.

When soil is replaced into a grave, it will inevitably contain more air pockets than the compacted soil before excavation. Over time, a backfilled grave will 'sink' as the air pockets escape and the soil settles; this is absolutely natural and practically unavoidable, especially in wet weather.

The amount and frequency of grave sinkage depends upon numerous factors, including:

- Nature of the backfilled soil
- Nature of the surrounding ground
- Depth of excavation
- Amount of rain, or rainwater runoff
- Groundwater levels

Ground subsidence is more likely after an extreme rainfall events or excessive rainfall over a prolonged period of time.

## Why don't the cemetery compact the graves?

Following the backfilling of any excavation, unless sufficient pressure is applied to thoroughly compact the backfilled material to exclude air spaces, the backfilled material sinks. However, in the case of cemeteries, it would be wholly inappropriate to apply such pressure to graves as it would crush the coffin.

## What happens after the burial?

Following the funeral, the equipment is removed and the grave is backfilled using the soil excavated from it. A certain amount of 'mounding up' of the grave takes place in anticipation of ground sinkage.

You will note that the 'mound' is a thick clay material, which is the soil excavated from the grave. During the weeks after the burial the cemetery will continue to monitor and top up the grave, if required with this clay material.

Until the ground stabilises, the use of top soil or sand like material to 'top up' the grave is futile as the finer particles erode in the wind or simply wash away in rain.

***It is important to note that graves need to be topped up on several occasions over a prolonged period before ground movements ceases.***

Once the ground is suitably settled, a layer of topsoil and turf will be placed over the grave area. Turf may need to be laid more than once, depending upon the weather conditions and the grave condition.



Recent Burial backfilled with excavated soil



Example of sunken grave



Stabilised grave covered in top soil in preparation for turf



Completed turfed grave