



On a beach in Dorset, where the earthy hillside merges with a small stream, I spot a young boy playing quite at peace, covered top-to-toe in mud. As the wet dirt dribbles through his fingers, he's the picture of contentment. It's no wonder that people immerse themselves in mud baths or come back grinning from an unexpectedly muddy dog walk—there's something about that sludgy brown goo that makes us feel really good.

'There's a whole mixture of physical feelings involved,' explains Liz Edwards, the founder of Muddy Faces (www.muddyfaces.co.uk), an organisation that promotes outdoor play and that campaigned to make mud-play part of most Early Years settings. 'It feels fantastic. You can squidge it through your fingers, you can run through it and you can swirl it round.' As the mud sticks to your limbs, there's also the sensation of 'the water evaporating,' she says, and 'the tightness of the soil drying out.'

The joy of mud also has to do with the setting. 'It's because you're outdoors,' continues Mrs Edwards. 'You're freer to make a mess; you're freer to get dirty, crawl, touch.' The enjoyment, she says, goes back to our origins. 'It's very natural for us to put our hands and feet back in the earth.'

There's a kind of unacknowledged 'alchemy', she believes. 'When you're mixing water and soil and creating mud, there's something very, very magical about that.' She directs me to the book *Making a Mud Kitchen*, co-written with her colleague Jan White. 'There's little more important in our physical world than earth and water,' writes Prof White. 'They're truly intriguing things, especially when they interact.'

Adults, of course, also feel the benefits of a bracing dose of mud, despite, perhaps, an initial reluctance. 'We're so used to muddy walks, with our main routes being in the Peak District, but we're all about embracing weather in all forms,' notes Lucy Hird, who, with her walking partner Emily Thornton, coined the term 'soft hiking', popularising walking among people of all fitness levels by sharing their gently paced walks on social media. 'Mud is very grounding and normally means it's rained, which means the air is full of positive ions that make us happy,' Miss Hird adds. 'We laugh so much as we wade, slip and slide through mud,' agrees Miss Thornton. 'It adds to our bank of memories and makes us even closer as friends.'

‘It’s very natural for us to put our hands and feet back in the earth’

'It's down to the sensory experience. Mud and soil are very tactile,' observes Lincolnshire-based Karin Alton, a scientific researcher at the University of Sussex who is also a forest bathing guide, leading meditative walks in Nature. 'Squishing mud between fingers and toes—it can be really calming. It's what connects us to the physical world and helps us feel more present in the moment.'

For Dr Alton, we've been 'so disconnected from Nature with urbanisation, it is, in some ways, as if our bodies can recognise and respond positively to that touch of earth.' 'That's why we are a nation of gardeners. We love getting out there and being tactile.' There's science behind it, too: 'Physical activities, such as playing in the mud, release endorphins, these natural feel-good chemicals,' she explains. 'It lifts your spirits.'

Neuroscientist Christopher Lowry has undertaken extensive research into the positive effects of mud, first at Bristol University and latterly as associate professor at the University

of Colorado at Boulder in the US. Bacteria found in mud were discovered to suppress inflammation, such as allergies. 'We reasoned that this bacterium, *Mycobacterium vaccae*, should be able to prevent negative

outcomes relevant to stress-related psychiatric disorders... in which inflammation is a risk factor,' Prof Lowry explains.

This has been supported by a series of studies that we've conducted over the past 25 years. Mycobacteria are one of the most common bacteria in soil and mud and, although it's unlikely that most people are exposed to *Mycobacterium vaccae* per se, anyone exposed to soil or mud is likely to be exposed to other mycobacteria that function in a similar way. Other studies, on community gardening and on forest-based daycare for children, for example, have also pointed to the benefits of regular contact with mud and soil. In short, says Prof Lowry, 'evidence suggests that a country life puts us on a path toward improved physical and mental health outcomes'.

The British countryside offers a wealth of gloopy spots to fill up on mud's benefits. The fertile mudflats of The Wash estuary between Lincolnshire and Norfolk are a bird-watcher's paradise, for example, and trails through the squishy boglands of Northern →

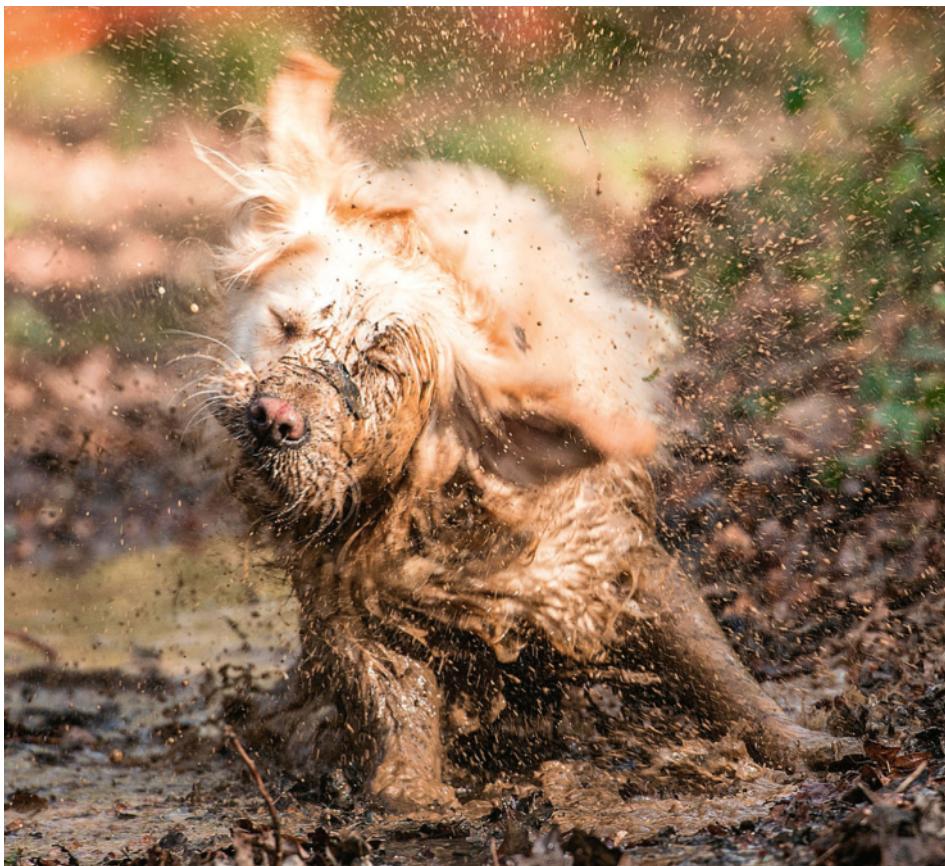
Give it some wellie: experience the health benefits of squelching around in the mud





Mud, mud, glorious mud

Squishy, sticky and deliciously cool, pigs and horses aren't the only ones who enjoy wallowing in thick, claggy wet soil, finds Deborah Nicholls-Lee



Mudbath: for some four-legged friends, a dog walk isn't a dog walk without a good wallow

Ireland's Co Fermanagh feature boardwalks for those preferring dry shoes. If that sounds far too clean, Eastnor Castle in Herefordshire is one of many country estates staging mud runs that send participants splashing through knee-high sludge.

Some of our most fascinating wildlife also thrives in mud. The intertidal mudflats that cover about 270,000 hectares of the UK's land conceal frilly ragworms ensnaring food with a mucus net and delivering a nasty nip to predators. Medicinal leeches with striking leopard-like markings lurk in muddy ponds awaiting juicy victims and tentacled fireworks anemones explode from the muddy floor of west Scotland's dramatic sea lochs.

For many creatures, the mud is a larder. Leggy curlews probe it for buried goodies, such as crabs and other small invertebrates, and oystercatchers use their long bills to extract mussels and cockles, jabbing at the shells to prise them open. For some, mud is a construction material. House martins combine it with their saliva to build their bobbly nests under the eaves and mason wasps take a similar approach, sticking their cellular homes to nooks and crevices.

Some mammals prefer to see mud as an open-air spa. A roll in the mud can be good

for a horse's skin and help to repel insects. Pigs, of course, make a real bath of it, rubbing off irritating passengers, such as ticks and lice, and wallowing in the mud to regulate their body temperature.

Whatever it is about mud that helps us feel good, it's available in abundance. 'We've got it all on our doorstep,' enthuses Dr Alton. 'We just have to step outside and feel it and touch it and smell it.'

Squidge, squodge, squelch: marvellously muddy walks

• Kinder Scout, Derbyshire

Lucy Hird and Emily Thornton had their best muddy walking experience climbing Kinder Scout, between Manchester and Sheffield and the highest point in the Peak District. The 'especially peaty and boggy' terrain made it a challenge, but 'added to the experience,' says Miss Hird. Hayfield and Edale are the nearest villages. www.nationaltrust.org.uk

• Caerlaverock Nature Reserve, Dumfries and Galloway

Ten miles from Dumfries, in the shadow of Caerlaverock Castle, is Caerlaverock National Nature Reserve, home to huge flocks of barnacle geese from September to May and a great location for spotting otters. Take a board walk through boggy grasslands or squelch along the sea wall between the Flooders and the Merse. www.nature.scot

• Malmesbury River Walk, Wiltshire

A hike across muddy fields and along the River Avon in Malmesbury requires wellies in wet weather, but affords lovely views of England's oldest borough and its beautiful, but dilapidated 12th-century abbey, once the tallest building in England. www.10adventures.com

• Hoo Peninsula, Kent

Buried on the fringes of the River Medway's muddy marshes are hundreds of hidden artefacts—pottery fragments, bottles and clay pipes. Upper or Lower Upnor are the best starting points for treasure hunting. www.discoveringbritain.org



Home sweet home: house martins combine mud and saliva to build nests under the eaves