

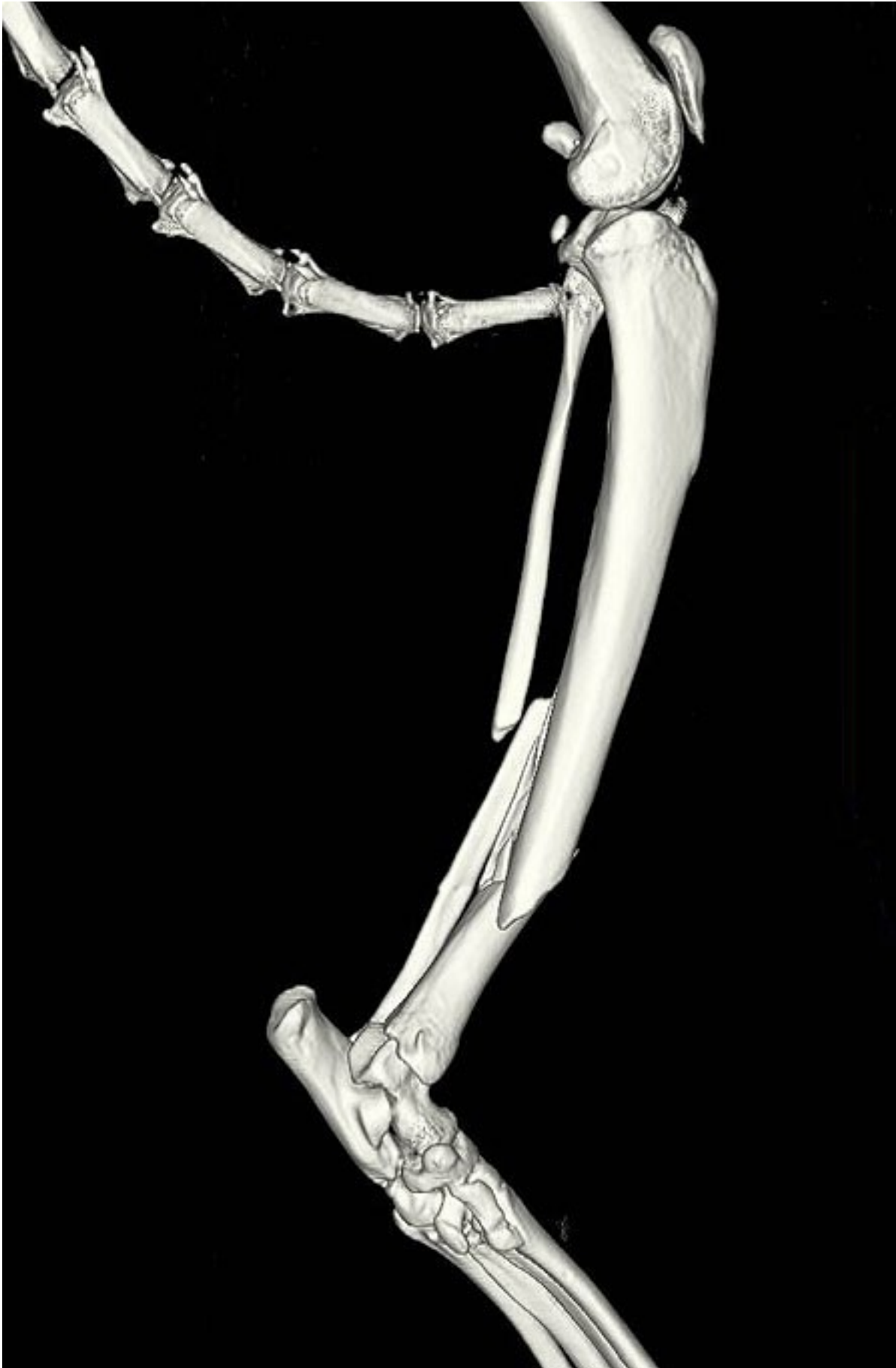
3D printing the way forward to help Marmite March on!

23 October 2015

Marmite a lovely young cat came to Willows earlier this year after getting in a spot of bother after he had been outside.

On returning home from his adventures, his owners became worried as he wasn't able to bear any weight on his left hind leg. A trip to his usual vets confirmed that poor Marmite had broken his leg during his mysterious outside activities.

Marmite was referred to Orthopaedic Specialist Bill Oxley. Bill examined Marmite, who was understandably in considerable pain on his left hind leg. He was admitted to the hospital for further investigations. Under general anaesthesia a CT scan revealed a very complex break of the left tibia and fibula (shin) bone.





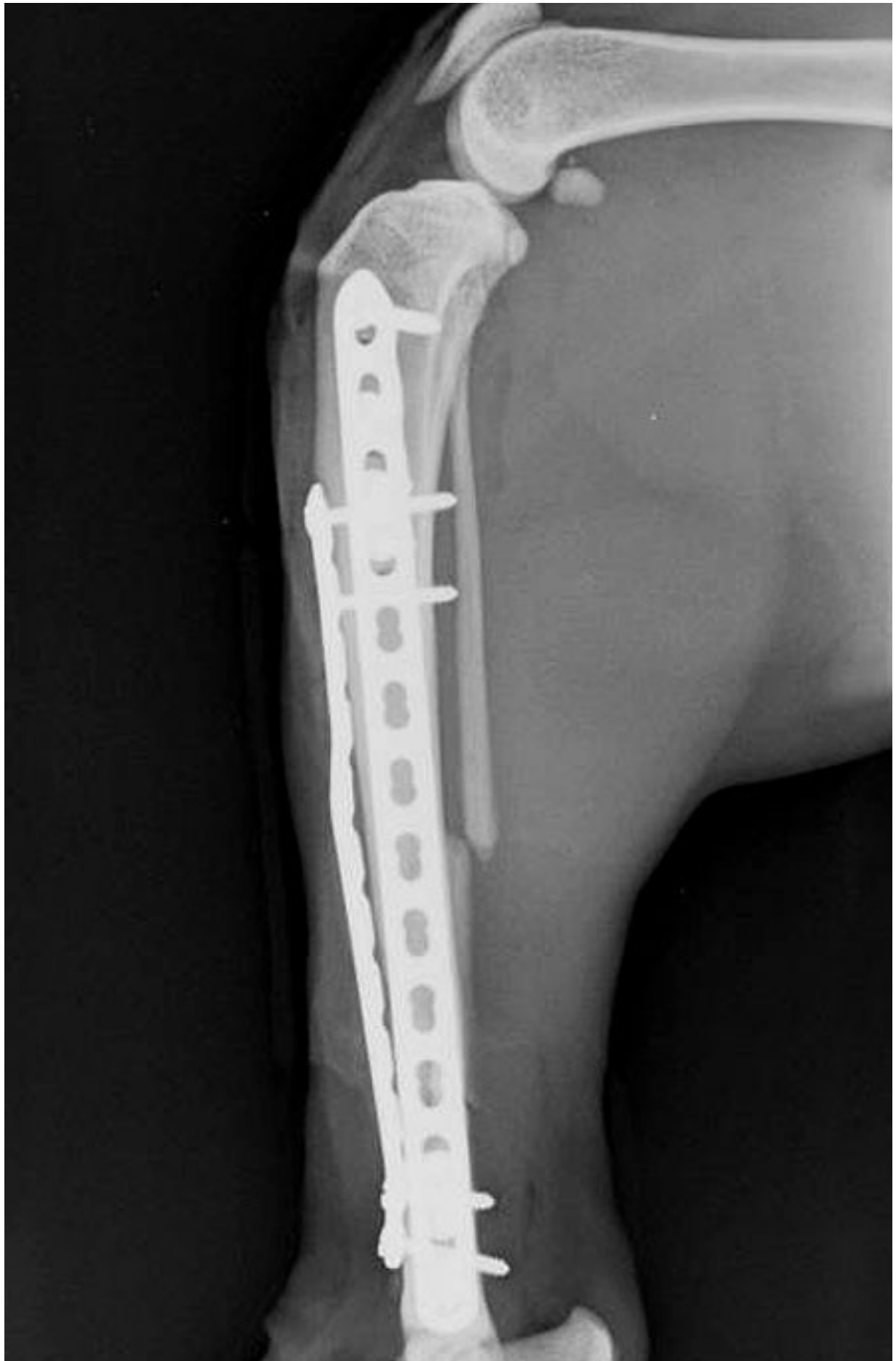
CT scans showing the complex break of the left tibia and fibula (shin) bone

By using the computer technology (CT) scan of the leg, a 3D model of the fractured tibia was created by mirroring the CT data from the intact leg. Bill was able to use the scan to replicate the tibia and make a plastic 3D print model. This enabled Bill to pre shape the bone plate that he would use to realign the fracture site, thus ensuring the fracture healed in the correct position providing the best possible outcome and recovery from surgery. The surgical plate would be a perfect fit and uniquely made for Marmite.



*A 3D model of the fractured tibia was created by mirroring the CT data from the intact leg -
Allowing Bill to pre shape the bone plate that would be used to re align the fracture*

Bill proceeded with the surgery to stabilise Marmite's broken leg, placing the stainless steel bone plate in position with screws adding a further bone plate and a bone graft to ensure optimal healing.





X rays were taken after surgery and showed good alignment of the broken bones



Marmite after his operation

He was then able to go home to his loving family on strict instructions of cage rest. After six weeks Marmite came back to visit Bill who was very pleased with his progress. He was able to walk around happily and was fully weight bearing on his affected leg. So Marmite marches on after his mystery adventure!

Don't forget the Petplan Veterinary Awards 2016 - The awards provide an opportunity for pet owners to recognise the hard work and dedication of veterinary staff – why not nominate today: