Background and cause
The trigeminal nerve is the fifth of twelve cranial nerves (CN-V) and is primarily responsible for jaw movement (e.g. chewing) and sensation (feeling) of the face.

Idiopathic trigeminal neuropathy is a disease of unknown cause which affects the function of the trigeminal nerves on both sides of the head. This typically presents as a sudden loss of jaw function and is the most common neurological cause of an inability to close the mouth.

Clinical signs (symptoms)
The most common clinical sign associated with idiopathic trigeminal neuropathy is an inability to close the mouth (dropped jaw), which results in difficulty eating and drinking, and excessive drooling. Despite the difficulty eating, most animals maintain the ability to swallow if they can get food to the back of the mouth. Reduced sensation of the face may also be present in up to one third of patients.

This condition can be seen in any breed of dog, at any age, but Golden Retrievers appear to be more commonly affected.

Diagnosis
Idiopathic trigeminal neuropathy is a diagnosis of exclusion, meaning the diagnosis is made by ruling out other diseases that might cause the same or similar clinical signs.

In addition to idiopathic trigeminal neuropathy, other neurological causes of an inability to close the jaw include infection (e.g. neosporosis, rabies), inflammation, cancer or trauma to the trigeminal nerves. Non-neurological causes of an inability to close the jaw include luxation of the jaw joint (when the joint pops out of place), fractures of the jaw and foreign bodies affecting the mouth and jaw. These causes can be excluded by thorough examination of the oral cavity (often under sedation or general anaesthesia), and by performing blood tests, advanced imaging of the head (MRI or CT), cerebrospinal fluid (CSF) analysis, an infectious disease panel and/or electromyography (testing the electric activity of the muscles) as required.

Treatment and prognosis
There is no specific treatment for idiopathic trigeminal neuropathy, but intensive nursing may be required, particularly if dogs are unable to eat or drink without assistance.

Nursing care may include regularly offering food and water by hand, as these patients are often unable to pick up food or lap water effectively. In some cases, it may be necessary to place a feeding tube to allow safe delivery of food and water directly into the food pipe (oesophagus) or stomach.
The prognosis for idiopathic trigeminal neuropathy is considered good, with most dogs recovering the ability to close the jaw within 2 to 4 weeks, although complete recovery can take up to 2 months. Idiopathic trigeminal neuropathy can reoccur, although repeat episodes are a rare occurrence.

If you have any concerns about your dog or their treatment then please do not hesitate to contact your veterinarian.