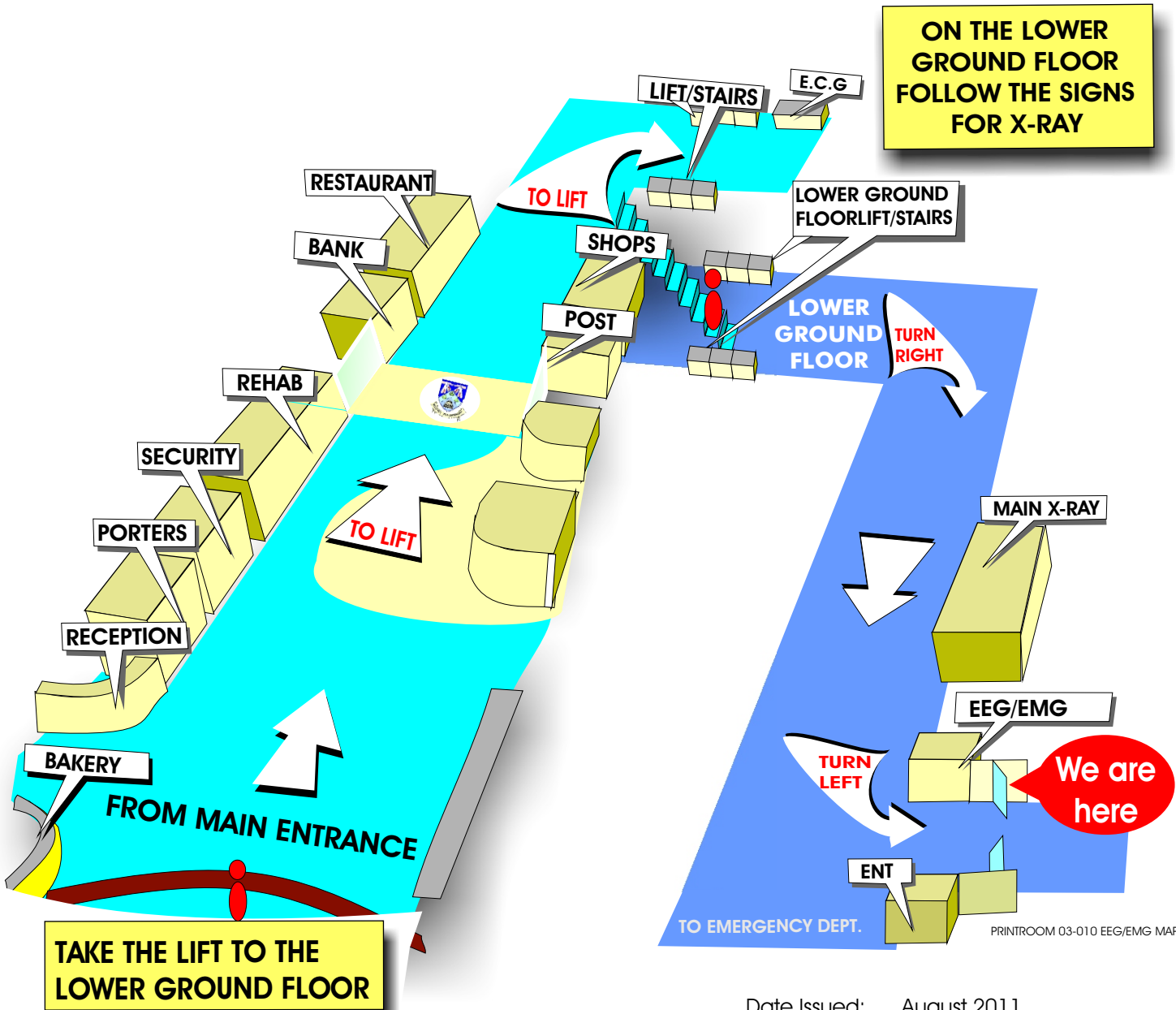


MAP FOR PATIENTS ATTENDING EEG/EMG



TAKE THE LIFT TO THE LOWER GROUND FLOOR

ON THE LOWER GROUND FLOOR FOLLOW THE SIGNS FOR X-RAY

Beaumont Hospital operates a No Smoking Policy

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PRINTROOM 03-010 EEG/EMG MAP



Neurophysiology Department

NeuroCent Directorate
 Beaumont Hospital



CARPAL TUNNEL SYNDROME

Patient Information Leaflet

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Beaumont Hospital is the principal teaching hospital for the Royal College of Surgeons in Ireland

What is carpal tunnel syndrome?

Carpal tunnel syndrome is one of the most common nerve disorders experienced today. The carpal tunnel is located at the wrist.

The median nerve passes through the carpal tunnel at the wrist. When the nerve is compressed (squeezed by swollen tissues, for example), it slows or blocks nerve impulses. Because the median nerve provides muscle function and feeling in the hand, symptoms of carpal tunnel syndrome range from mild occasional numbness to hand weakness, loss of feeling and loss of hand function.

Usually carpal tunnel syndrome affects only one hand, but can affect both at the same time, causing symptoms in all or some of the fingers including thumb, index, middle and adjacent half of the ring finger but rarely the little finger. In addition to numbness, those with the syndrome may experience tingling, pins and needle sensation or burning of the hand occasionally extending up to the forearm.

Frequently, symptoms occur on waking, or may cause pain at night. Symptoms can occur with certain activities such as driving, holding a book or other repetitive activity with the hands.

Individuals often shake their hands trying to obtain relief and may experience the sensation of swelling when, in fact, no swelling is actually present.

What causes carpal tunnel syndrome?

The exact cause is unknown, carpal tunnel syndrome may occur in patients who are pregnant, or who have various medical conditions, including thyroid disease, diabetes or arthritis, or injuries such as wrist fractures. Whether repetitive work activities cause carpal tunnel syndrome is still unclear.

How is carpal tunnel syndrome diagnosed?

The diagnosis of carpal tunnel syndrome is clinical and supported by tests including:

- The **nerve conduction studies (NCS)** is the strongest evidence for carpal tunnel syndrome. The nerve is stimulated with a mild electrical current generated by a small electrode placed on the skin. The impulse travels in the nerve through the tunnel to the hand where the impulse is measured.
- The second part of the test, **electromyography (EMG)**, assesses the degree of abnormal function of the muscles. A small needle is inserted into the muscles of the hand and the electrical activity of the muscle is measured at rest and on contraction.

How is carpal tunnel syndrome treated?

The NCS report is generated by a consultant and is forwarded to your referring physician, he/she will discuss treatment options with you. Please ensure that you have a follow up appointment with your doctor after this test