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## Stroke Research and Therapy

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## Editorial

**Stroke Research & Therapy** is an international open access peer-reviewed journal dedicated to disseminate the basic and clinical studies of Stroke research through its publications. The journal the aims to publish the most complete and reliable source of information on the recent research advancements and therapeutic developments pertaining to Stroke. Successfully releasing its issues. The issues are released anually.

A Stroke or Brain Attack is a medical emergency occurs when blood flow to brain stops or interrupted or severely reduced and brain cells are deprived of oxygen and nutrients and begin to die. There are two kinds of stroke, Ischemic Stroke (caused by a blood clot that blocks or plugs a blood vessel in the brain) and Hemorrhagic Stroke (caused by a blood vessel that breaks and bleeds into the brain). Mini Strokes or Transient Ischemic Attacks (TIAs), occur when the blood supply to the brain is briefly interrupted. Ischemic stroke occurs when an artery (blood vessel) carrying blood to the brain is blocked. The underlying condition for this type of obstruction is the development of fatty deposits or blood clots lining the vessel walls, narrowing the arteries in the neck or head. This condition is called Atherosclerosis. These blood clots can cause two types of obstruction: Cerebral thrombosis: refers to a thrombus (blood clot) that develops at the clogged part of the vessel. Cerebral embolism refers generally to a blood clot formed somewhere other than in the brain itself. Hemorrhagic Stroke occurs when a weakened blood vessel (artery) ruptures or leaks. Hemorrhagic strokes are less common, but they are responsible for about 40 percent of all stroke deaths. There are two types of hemorrhagic stroke called Intracerebal (A blood vessel inside the brain bursts and leaks blood into surrounding brain tissue) and subarachnoid (involves bleeding in the area between the brain and the tissue covering the brain). Two types of weakened blood vessels usually cause hemorrhagic stroke: Aneurysms and Arteriovenous Malformations (AVMs). Transient Ischemic Attacks (TIA) or "ministroke", an acute episode of temporary neurologic dysfunction, occurs when blood flow to a part of the brain stops temporarily for a brief time. A TIA is a stroke that comes and goes quickly. The brain is an extremely complex organ that controls various body functions. Each area of the brain is responsible for a special function or ability. The brain has three components namely Cerebrum (controls movement and sensation, speech, thinking, reasoning, memory, vision, and

emotions), Cerebellum (coordinate muscle action and control, fine movement, coordination, and balance) and Brainstem (controls heartbeat, blood pressure, and breathing; and helps control the main nerves involved with eye movement, hearing, speech, chewing, and swallowing. A stroke occurs when the blood flow to an area of the brain is interrupted. If a stroke occurs and blood flow can't reach the region that controls a particular body function that part of the body won't work normally resulting in a disability leads to specific impairments. Vascular Biology is the study cellular and molecular functions of Vascular System and its components. The cardiovascular system consists of the heart, blood, and blood vessels (arteries, veins, and capillaries). This complex system is involved in a diverse number of functions. The vascular network consists of both small and large vessels specifically designed to accommodate varying levels of blood flow and pressure, depending upon the location within the body. Cerebral Circulation is the movement of blood (blood flow) or circulates, in the brain through the network of blood vessels. During cerebral circulation, the arteries deliver oxygenated blood, glucose and other nutrients to the brain and the veins carry deoxygenated blood back to the heart, removing carbon dioxide, lactic acid, and other metabolic products. Cerebral circulation is important for healthy brain function. Cerebral blood flow (CBF) is the blood supply to the brain in a given period of time. Cardiovascular disease (CVD) includes a number of conditions affecting the structures or function of the heart or blood vessels. CVDs are a group of disorders of the heart and blood vessels. Cardiovascular disease generally refers to conditions that involve narrowed or blocked blood vessels that can lead to a heart attack, chest pain (angina) or stroke. There are four main types of CVD: Coronary heart disease, Stroke, Peripheral arterial disease, Aortic disease. Heart attacks and strokes are usually acute events and are mainly caused by a blockage that prevents blood from flowing to the heart or brain. The risk factors for CVD include high blood pressure, smoking, high blood cholesterol, diabetes, lack of exercise, being obese, family history of heart disease and ethnic background. Stroke Rehabilitation helps stroke survivors relearn skills that are lost when part of the brain is damaged. Stroke rehabilitation is an important part of recovery after stroke. Rehabilitation also teaches survivors new ways of performing

The article titled "High Intensity Group Gait Training: Is it Intense Enough?" is published in archives of stroke research and

tasks to circumvent or compensate for any residual disabilities.

therpy in volume 4 issue 1 describes for all group sizes, gait training is feasible and effective without sacrificing intensity. Furthermore, for participants who received a minimum of five training sessions, 86% demonstrated improvements of at least 1 MCID in functional outcomes. While one cannot draw direct causation, there does seem to be a benefit of completing training in a group.

Stroke Research and Therapy is welcoming high quality, unpublished, work within the above mentioned framework, while aspires to play a key role in shaping research and development in the field of stroke research and therapy and quickly be acknowledged by readers, achieving a high visibility for its articles.