

Glossary

¹²³I-metaiodobenzylguanidine (¹²³I-MIBG) *A particular type of radioactive drug that is used to visualize sympathetic nerves such as in the heart.*

6-[¹⁸F]Fluorodopamine *A drug that is the catecholamine, dopamine, with a fluorine atom attached that is a radioactive isotope called a positron emitter. Positron-emitting fluorodopamine is used to visualize sympathetic nerves such as in the heart.*

-A-

Acetylcholine *A particular chemical that functions as the chemical messenger of the parasympathetic nervous system.*

ADH (Abbreviation for antidiuretic hormone).

Adrenal, adrenal gland *Glands near the tops of the kidneys that produce steroids such as cortisol and catecholamines such as adrenal.*

Adrenaline *The same as epinephrine.*

Adrenal medulla *The “marrow,” or core, of the adrenal gland.*

Adrenoceptors *Specialized proteins in cell membranes of various tissues that bind to the catecholamines norepinephrine (noradrenaline) or epinephrine (adrenaline), resulting in changes in the state of activity of the cells.*

Adrenomedullary hormonal system *The part of the autonomic nervous system where epinephrine is released from the adrenal medulla.*

Aldosterone The main sodium-retaining steroid produced in the adrenal gland.

Alpha-1 adrenoceptors A particular type of adrenoceptors that is prominent in blood vessel walls. Stimulation of alpha-1 adrenoceptors in blood vessel walls causes the vessels to tighten.

Alpha-2 adrenoceptor blocker A drug that blocks alpha-2 adrenoceptors.

Alpha-2 adrenoceptors A type of adrenoceptor that is present on particular cells in the brain, in blood vessel walls, in several organs, and on sympathetic nerve terminals.

Alpha-adrenoceptors One of the two types of receptors for norepinephrine (noradrenaline) and epinephrine (adrenaline).

Alpha-methylDOPA (Aldomet™) A drug that resembles levodopa and is an effective drug to treat high blood pressure.

Amphetamines Drugs that share a particular chemical structure that causes decreased appetite, increased attention, decreased sleep, and behavioral activation.

Amino acid A particular type of chemical that contains an amino chemical group and a carboxylic acid chemical group and is a “building block” of proteins.

Anemia A decreased amount of red blood cells. Anemic patients look pale and feel tired.

ANS (Abbreviation for autonomic nervous system)

Antidiuretic hormone (ADH). Same as vasopressin.

Arterial blood sampling Obtaining blood from a large blood vessel that moves blood away from the heart.

Arterial pressure *The blood pressure in an artery.*

Artery *A large blood vessel that carries blood from the heart. Arteries (with the exception of the arteries to the lungs) carry oxygen-rich blood at high pressure.*

Arteriole *Like “twigs” of the arterial tree, the arterioles are tiny arteries that carry blood from the heart. The overall amount of constriction of arterioles is the main determinant of the total resistance to blood flow in the body. Constriction of arterioles therefore increases the blood pressure, just like tightening the nozzle increase the pressure in a garden hose.*

Asphyxiation *Loss of consciousness from lack of breathing, such as in suffocation.*

Aspiration *Inhalation of a foreign body into the airway.*

Auto-immune autonomic failure *A form of autonomic failure associated with an “attack” of the immune system on a part of the autonomic nervous system.*

Autonomic *Referring to the autonomic nervous system.*

Autonomic function testing *Testing of one or more functions of the autonomic nervous system.*

Autonomic Myasthenia *Nickname for a form a chronic autonomic failure associated with an antibody to the acetylcholine receptor responsible for transmission of nerve impulses in ganglia.*

Autonomic nerve supply *The amount of autonomic nerve fibers and terminals in a tissue or organ.*

Autonomic nervous system (ANS) *The body’s “automatic” nervous system, responsible for many automatic, usually unconscious processes that keep the body going.*

AVP *(Abbreviation for arginine vasopressin).*

Axon reflex A type of reflex where stimulation of nerves going towards the brain leads directly to a change in nerve activity towards a nearby site.

-B-

Baroreceptor reflex A rapid reflex where an increase in blood pressure sensed by the brain leads to relaxation of blood vessels and a decrease in heart rate.

Baroreceptors Stretch or distortion receptors in the walls of large blood vessels such as the carotid artery and in the heart muscle.

Baroreflex The same as baroreceptor reflex.

Baroreflex Failure An unusual disorder where the baroreceptor reflex fails, resulting in variable blood pressure and orthostatic intolerance.

Benign Prostatic Hypertrophy (BPH) Long-term enlargement of the prostate gland that does not result from a cancer.

Benzodiazepine A type of drug with a particular chemical structure that causes sedation, an anti-anxiety effect, relaxation of skeletal muscle, and decreased seizure activity.

Beta-1 adrenoceptors One of the three types of beta-adrenoceptors, prominent in the heart muscle.

Beta-2 adrenoceptors One of the three types of beta-adrenoceptors, prominent in blood vessel walls in skeletal muscle, in the heart muscle, and on sympathetic nerve terminals.

Beta-3 adrenoceptors One of the three types of beta-adrenoceptors, prominent in fatty tissue.

Beta-Adrenoceptor blocker *A type of drug that blocks one more types of beta-adrenoceptors.*

Beta-Adrenoceptors *One of the two types of receptors for the norepinephrine (noradrenaline) and epinephrine (adrenaline).*

Bethanecol (Urecholine™) *A drug that stimulates some receptors for acetylcholine, mimicking some of the effects of stimulating the parasympathetic nervous system.*

Blood glucose *The concentration of the important metabolic fuel, glucose (dextrose), in the blood.*

Blood pressure *The pressure in arteries. Systolic blood pressure is the maximum pressure while the heart is beating, and diastolic blood pressure is the minimum pressure between heartbeats.*

Blood volume *The total volume of blood in the body. Most of the blood volume is in veins.*

BPH (Abbreviation for benign prostatic hypertrophy)

Brainstem *The lower part of the brain, located just above the spinal cord. The brainstem includes the hypothalamus, midbrain, pons, and, just at the top of the spinal cord, the medulla oblongata.*

-C-

Caffeic acid *A particular chemical found in coffee beans that is not caffeine.*

Caffeine *A chemical found in high concentrations in coffee beans.*

Carbidopa *A drug that inhibits the conversion of L-DOPA (levodopa) to dopamine. Because carbidopa does not enter the brain from the bloodstream,*

carbidopa blocks the conversion of L-DOPA to dopamine outside the brain.

Cardiac output *The amount of blood pumped by the heart in one minute.*

Catechols *Chemicals with a structure that includes two adjacent hydroxyl groups on a benzene ring. The catecholamines norepinephrine (noradrenaline), epinephrine (adrenaline), and dopamine are catechols, as are the non-catecholamines levodopa and carbidopa in Sinemet™.*

Catecholamine *A member of an important chemical family that includes adrenaline.*

Catecholamines *Norepinephrine (noradrenaline) epinephrine (adrenaline), and dopamine.*

Cell membrane norepinephrine transporter (NET) *The transporter responsible for “recycling” of norepinephrine back into sympathetic nerves.*

Central nervous system *The brain and spinal cord.*

Central Sympathetic Hyperactivity *A condition where there is an increase in the rate of sympathetic nerve traffic in the body as a whole.*

Cerebellar *Referring to the cerebellum.*

Cerebellar atrophy *A decrease in size of the cerebellum, a part of the brain.*

Cerebellum *A part of the brain, located above and behind the brainstem, that plays important roles in coordination of movement and the sense of orientation in space.*

Cerebrospinal fluid (CSF) *The clear fluid that bathes the brain and spinal cord.*

Chiari malformation *An anatomic abnormality where part of the brainstem falls below the hole between the brain and spinal cord.*

Chronic autonomic failure *Long-term failure of the autonomic nervous system.*

Chronic fatigue syndrome *A condition where the patient has a sense of persistent fatigue for more than six months, without an identified cause.*

Chronic orthostatic intolerance *Long-term inability to tolerate standing up.*

Clearance *The volume of fluid cleared of a substance in one minute.*

Clonidine *A drug that stimulates alpha-2 adrenoceptors in the brain, in blood vessel walls, and on sympathetic nerve terminals. Clonidine decreases release of norepinephrine from sympathetic nerves and decreases blood pressure.*

Clonidine suppression test *A test based on effects of clonidine administration on blood pressure and plasma levels of chemicals such as norepinephrine (noradrenaline).*

Common faint *The same as neurocardiogenic syncope.*

Compensatory activation *A situation where failure of one effector system compensatorily activates another effector system, allowing a degree of control of a monitored variable.*

Constipation *Infrequent and difficult bowel movements.*

Coronary arteries *The arteries that deliver blood to the heart muscle.*

Coronary artery disease *A disease where the coronary arteries become narrowed or blocked by fatty deposits and thickening of the walls.*

Cranial nerves *The twelve nerves that come through holes in the skull from the brainstem and go to many organs, from the eyes to the gastrointestinal tract.*

-D-

d-Amphetamine *The dextro- mirror image form of amphetamine.*

DBH (Abbreviation for dopamine-beta-hydroxylase)

Dehydration *Abnormal lack of water in the body.*

Delayed orthostatic hypotension *A fall in blood pressure after prolonged standing.*

Denervation supersensitivity *Increased sensitivity of a process as a result of loss of delivery of a chemical messenger to its receptors that normally mediate the process.*

Dextro-amphetamine (Same as d-amphetamine)

Diabetes *A disease state with excessive volume of urination and excessive water intake. Diabetes mellitus results from lack of insulin effects in the body. Diabetes insipidus results from lack of antidiuretic hormone (vasopressin) in the body.*

Diagnosis *A decision about the cause of a specific case of disease.*

Dihydrocaffeic acid *A particular chemical that is a breakdown product of caffeic acid.*

Distress *A form of stress that is consciously experienced, where the individual senses an inability to cope, attempts to avoid or escape the situation, elicits instinctively communicated signs, and activates the adrenal gland.*

DOPA decarboxylase (DDC, LAAAD) *The enzyme responsible for conversion of L-DOPA to dopamine in the body.*

Dopamine-beta-hydroxylase (DBH) *The enzyme responsible for conversion of dopamine to norepinephrine in the body.*

Dysautonomia *A condition where a change in the function of the autonomic nervous system adversely affects health.*

-E-

Ephedrine *A particular drug that acts in the body as a sympathomimetic amine.*

Epinephrine (adrenaline) *The main hormone released from the adrenal medulla.*

EPI (Abbreviation for epinephrine)

Erectile impotence *Impotence from failure to have or sustain erection of the penis.*

Ergotamine *A particular drug that constricts blood vessels.*

Erythropoietin *A hormone that stimulates the bone marrow to produce red blood cells.*

Extravasation *Leakage of fluid from blood vessels into the surrounding tissues.*

-F-

Fainting *Relatively rapid loss of consciousness that is not caused by heart disease.*

False-positive test *A positive test result when the patient does not actually have the disease.*

Familial Dysautonomia (FD) *A rare inherited disease that features abnormalities in sensation and in functions of the autonomic nervous system.*

FBF (Abbreviation for forearm blood flow)

FD (Abbreviation for Familial Dysautonomia)

Fenfluramine *A particular drug that acts in parts of the nervous system where serotonin is the chemical messenger.*

Florinef™ (Brand name for fludrocortisone)

Fludrocortisone (Florinef™) *A type of artificial salt-retaining steroid drug.*

Fluorodopamine *A drug that is the catecholamine, dopamine, with a fluorine atom attached. The fluorine atom can be a type of radioactive isotope called a positron emitter. Positron-emitting fluorodopamine is used to visualize sympathetic nerves such as in the heart.*

Forearm blood flow (FBF) *The rate of inflow of blood into the forearm, usually expressed in terms of blood delivery per 100 cc of tissue volume per minute.*

Forearm vascular resistance (FVR) *The extent of resistance to blood flow in the forearm blood vessels.*

FVR (Abbreviation for forearm vascular resistance)

-G-

Galvanic skin response (GSR) *A physiological change in the ability of the skin to conduct electricity, due to a change in the amount of sweat.*

Ganglia *Plural of ganglion.*

Ganglion *A clump of cells where autonomic nerve impulses are relayed between the spinal cord and target organs such as the heart.*

Ganglion blocker *A type of drug that inhibits the transmission of nerve impulses in ganglia.*

Glucose *One of the body's main fuels. The same as dextrose.*

GSR (Abbreviation for galvanic skin response) *A rapid increase in electrical conduction in the skin as a result of an increase in production of sweat.*

-H-

Heart failure *A condition where the heart fails to pump an amount of blood for the tissues of the body.*

Hormone *A chemical released into the bloodstream that acts at remote sites in the body.*

HR (Abbreviation for heart rate)

Hyperadrenergic Orthostatic Intolerance *A condition where an inability to tolerate standing up is combined with signs or symptoms of excessive levels of catecholamines such as epinephrine (adrenaline).*

Hyperdynamic Circulation Syndrome *A condition where the rate and force of the heartbeat are abnormally increased.*

Hypernoradrenergic Hypertension *Long-term high blood pressure associated with increased release of norepinephrine from sympathetic nerve terminals.*

Hypertension *A condition where the blood pressure is persistently increased.*

Hypoglycemia *A condition where there is an abnormally low blood glucose level.*

Hypothermia *A condition where there is an abnormally*

low body temperature.

-I-

Impotence *Inability to have erection of the penis or ejaculation of semen.*

Inappropriate Sinus Tachycardia *Excessive fast heart rate because of excessively fast firing of the heart's pacemaker in the sinus node.*

Incontinence *Sudden involuntary urination or bowel movement.*

Inderal™ (Brand name of propranolol)

Indirectly acting sympathomimetic amine *A type of drug that produces effects similar to those of stimulating sympathetic nerves.*

Innervation *Nerve supply.*

Insulin *An important hormone released from the pancreas that helps to control the blood glucose level.*

Intravenous saline *Physiological salt-in-water solution that is given by vein.*

Iontophoresis *A way using electricity to deliver a drug to the skin surface.*

Isoproterenol (Isuprel™)

Isoproterenol Infusion Test *A test where isoproterenol is given by vein, to see if this affects the ability to tolerate tilting or to measure the body's responses to stimulation of beta-adrenoceptors.*

Isuprel™ (Brand name of isoproterenol)

-K-

Kinky hair disease *The same as Menkes disease.*

-L-

LAAAD (Abbreviation for L-aromatic-amino-acid decarboxylase)

L-aromatic-amino-acid decarboxylase (LAAAD) *The enzyme that converts levodopa to dopamine in the body.*

L-dihydroxyphenylalanine (Levodopa, L-DOPA)

L-Dihydroxyphenylserine (L-DOPS) *A particular amino acid that is converted to norepinephrine by the action of L-aromatic-amino-acid decarboxylase.*

L-DOPA (Abbreviation for L-dihydroxyphenylalanine, the same as levodopa)

L-DOPS (Abbreviation for L-dihydroxyphenylserine)
Levodopa *The same as L-DOPA and L-dihydroxyphenylalanine.*

Lumbar puncture *A procedure where a needle is inserted into the lower back, such as to sample cerebrospinal fluid.*

-M-

Ma huang *Chinese name for an herbal remedy that is ephedrine*

MAP (Abbreviation for mean arterial pressure)

Mean arterial pressure (MAP) *The average blood pressure in the arteries.*

Menkes disease *A rare inherited disease of copper metabolism that causes death in early childhood.*

Methylphenidate (Ritalin™) *A particular drug in the family of amphetamines.*

Midodrine (Proamatine™) *A particular drug that can be taken as a pill and constricts blood vessels by way of*

stimulation of alpha-adrenoceptors, used commonly in the treatment of orthostatic hypotension and orthostatic intolerance.

Military antishock trousers (MAST) suit *A type of inflatable trousers that decreases pooling of blood in the legs.*

Mineralocorticoid *A type of steroid that causes the body to retain sodium.*

Monoamine *A type of biochemical that contains a component called an amine group. Serotonin and adrenaline are monoamines.*

Moxonidine *A particular drug that decreases blood pressure by decreasing sympathetic nerve traffic.*

MSA (Abbreviation for Multiple System Atrophy)

Multiple System Atrophy (MSA) *A progressive disease of the brain that includes failure of the autonomic nervous system.*

Mutation *A rare genetic change, like a “typo” in the genetic encyclopedia.*

Myocardium *Muscle tissue of the heart.*

-N-

NE (Abbreviation for norepinephrine)

Nerve terminal *The end of a nerve fiber, from which chemical messengers are released.*

NET (Abbreviation for cell membrane norepinephrine transporter)

NET Deficiency *A rare cause of orthostatic intolerance resulting from decreased activity of the cell membrane norepinephrine transporter.*

Neurally Mediated Syncope *A condition that includes sudden loss of consciousness from a change in the function of the autonomic nervous system.*

Neurasthenia (Same as neurocirculatory asthenia).

Neurocardiogenic Syncope (Same as Neurally Mediated Syncope).

Neurochemical *A chemical released from nervous tissue.*

Neurocirculatory Asthenia *A condition closely related to chronic fatigue syndrome that features exercise intolerance without identified cause, described mainly in medical literature from the former Soviet Union.*

Neuroimaging tests *Tests based on visualizing the nervous system.*

Neuropathic POTS *A form of postural tachycardia syndrome (POTS) thought to result from local or patchy loss of sympathetic nerves.*

Neuropharmacologic *A type of drug effect that acts on nervous tissue or mimics chemicals released in nervous tissue.*

Neurotransmitter *A chemical released from nerve fibers or terminals that produces effects on other cells nearby.*

Nicotine *A chemical in tobacco that stimulates a particular type of receptor for the chemical messenger acetylcholine.*

Nicotinic receptor *One of the two types of receptors for the chemical messenger acetylcholine.*

Nitroglycerine *A particular drug that relaxes walls of veins in the body.*

Non-selective beta-adrenoceptor blockers *A type of drug that blocks all types of beta-adrenoceptors.*

Norepinephrine (noradrenaline) *The main chemical messenger of the sympathetic nervous system, responsible for much of regulation of the cardiovascular system by the brain.*

Normal saline *A dilute solution of sodium chloride (table salt) that has the same concentration as in the serum.*

-O-

Orthostasis *Standing up.*

Orthostatic hypotension *A fall in blood pressure when a person stands up. This can be defined by a fall in systolic blood pressure of 20 mm Hg or more or a fall in diastolic blood pressure of 5 mm or more when the person stands up.*

Orthostatic intolerance *An inability to tolerate standing up, due to a sensation of lightheadedness or dizziness.*

Orthostatic tachycardia *An excessive increase in pulse rate when a person stands up.*

-P-

Pacemaker *A device that produces electrical impulses in the heart.*

PAF (Abbreviation for Pure Autonomic Failure)

Palpitations *A symptom where the patient notes a forceful, rapid heartbeat or a sensation of the heart “flip-flopping” in the chest.*

Panic disorder *A condition that features a rapid buildup of fear or anxiety that the patient cannot control.*

Parasympathetic nerve traffic *The rate of traffic in parasympathetic nerves.*

Parasympathetic nervous system *One of the two branches of the autonomic nervous system, responsible for many “vegetative” functions such as gastrointestinal movements after a meal.*

Parasympathetic neurocirculatory failure *Failure to regulate the heart rate appropriately, such as during normal breathing or in response to the Valsalva maneuver.*

Parkinson’s disease *A nervous system disease of the brain that produces slow movements, a form of limb rigidity called “cogwheel rigidity,” and a “pill-roll” tremor that decreases with intentional movement. Other features of Parkinson’s disease include a mask-like facial expression, stopped posture, difficulty initiating or stopping movements, and small handwriting.*

Parkinson’s disease with orthostatic hypotension *Parkinson’s disease with a fall in blood pressure when the patient stands up.*

Parkinsonian *Having one or more features of Parkinson’s disease.*

Parkinsonian form of MSA *A form of multiple system atrophy that includes one or more features of Parkinson’s disease.*

Partial dysautonomia (Same as Neuropathic POTS)

Peristalsis *Gastrointestinal movements such as after a meal that move digested material.*

PET scanning (Abbreviation for positron emission tomographic scanning)

Phen-Fen *Two drugs, phentermine and fenfluramine, prescribed together to decrease appetite and promote weight loss.*

Phentermine *A particular drug that acts in the body as a sympathomimetic amine.*

Phenylalanine *A particular amino acid*

Phenylephrine (Brand name Neo-Synephrine™) *A particular drug that constricts blood vessels by stimulating alpha-1 adrenoceptors.*

Phenylketonuria (PKU) *A disease of children that results from lack of activity of a particular enzyme, phenylalanine hydroxylase, resulting in a toxic buildup of phenylalanine in the body.*

Phenylpropanolamine (PPE) *A particular drug that acts in the body as a sympathomimetic amine.*

Pheo (slang for pheochromocytoma)

Pheochromocytoma *An abnormal growth that produces the catecholamines norepinephrine (noradrenaline) or epinephrine (adrenaline).*

Physiological *Referring to a body function, as opposed to a body part.*

Plasma *The part of the blood that is left after anti-coagulated blood settles or is centrifuged (spun at a high rate in a tube).*

Plasma epinephrine level *The concentration of epinephrine (adrenaline) in the plasma.*

Plasma norepinephrine level *The concentration of norepinephrine (noradrenaline) in the plasma.*

Polymorphism *A genetic change that is not as rare as a mutation but not so common as to be considered normal.*

Positron emission tomographic scanning (PET scanning) *A type of nuclear medicine scan where a positron-emitting form of a drug is injected, and particular parts of the body become radioactive, with the*

radioactivity detected by a special type of scanner called a PET scanner.

Positron emitter *A chemical that releases a special type of radioactivity called positrons.*

Postganglionic nerves *Nerves from the ganglia that deliver signals to nerve terminals in target tissues such as the heart.*

Post-prandial hypotension *An abnormal fall in blood pressure after eating.*

Postural Tachycardia Syndrome (POTS) *A condition where the patient has a long-term inability to tolerate standing up, along with an excessive increase in pulse rate in response to standing.*

Potassium *An important element found in all cells of the body.*

POTS (Abbreviation for Postural Tachycardia Syndrome)

Power spectral analysis of heart rate variability *A special type of test based on changes in the heart rate over time.*

PPE (Abbreviation for phenylpropanolamine)

Preganglionic nerves *Nerves of the autonomic nervous system that come from cell bodies in the spinal cord and pass through the ganglia.*

Presyncope *A feeling of near-fainting.*

Proamatine™ (Brand name of midodrine)

Procrit™ (Brand name of erythropoietin)

Progressive Supranuclear Palsy *A type of neurological syndrome with particular abnormalities of gaze.*

Propranolol (Brand name Inderal™) *A drug that is the classical non-selective beta-adrenoceptor blocker.*

Provocative test *A test designed to evoke an abnormal response of the body.*

Pseudoephedrine (Sudafed™) *A particular drug that acts in the body as a sympathomimetic amine.*

Pure Autonomic Failure (PAF) *A form of long-term failure of the autonomic nervous system where there is no clear evidence for degeneration of the brain.*

-Q-

QSART (Abbreviation for Quantitative Sudomotor Axon Reflex Test)

Quantitative Sudomotor Axon Reflex Test (QSART) *A type of test of autonomic nervous system function based on the ability of drugs to evoke sweating.*

-R-

Radiofrequency ablation *Destruction of a tissue by applying radiofrequency energy, which burns the tissue.*

Receptors *Special proteins in the walls of cells that bind chemical messengers such as hormones.*

Renin System Failure

Renin-Angiotensin-Aldosterone system *A system that plays an important role in maintaining the correct amount of blood volume and sodium in the body.*

Respiratory sinus arrhythmia *The normal changes in pulse rate that occur with breathing.*

Ritalin™ (Brand name of methylphenidate) *A particular drug that resembles amphetamine.*

-S-

Salivation *Formation of spit.*

Salivary glands *Glands responsible for releasing saliva.*

Serotonin *A chemical messenger in a family called monoamines. Catecholamines such as adrenaline are also monoamines.*

Shy-Drager syndrome (multiple system atrophy with sympathetic neurocirculatory failure) *A form of nervous system disease where different pathways of the brain degenerate and the patient has a fall in blood pressure during standing, because of failure of the sympathetic nervous system.*

Sinemet™ (Brand name of levodopa, or L-DOPA)

Sinus node *The pacemaker area of the heart that normally generates the electrical impulses resulting in a coordinated heartbeat.*

Sinus node ablation *Destruction of the sinus node in the heart, usually as a treatment for excessively rapid heart rate.*

Skin sympathetic test (SST) *A type of test of the sympathetic nervous system based on the ability of various drugs or environmental manipulations to increase secretion of sweat.*

Sodium *An important chemical element found in all body fluids.*

Somatic nervous system. *The somatic nervous system is the main way the body deals with the “outside world,” by way of its main target organ, skeletal muscle.*

Smooth muscle cells *The type of muscle cells in the heart and in blood vessel walls.*

SSRI (Abbreviation for selective serotonin reuptake inhibitor) *SSRIs block one of the main ways of inactivating and recycling the chemical messenger, serotonin. This increases delivery of serotonin to its*

receptors in the brain. SSRIs are used to treat depression, anxiety, and other psychiatric or emotional problems.

SST (Abbreviation for skin sympathetic test)

Stereoisomer *A mirror image structure of a chemical.*

Strain gauge *A testing device that sensitively measures stretch.*

Stress *A condition where the brain senses a challenge to physical or mental stability that leads to altered activities of body systems to meet that challenge*

Striatonigral degeneration *A form of nervous system disease where the patient seems to have Parkinson's disease but does not respond well to treatment with levodopa.*

Stroke volume *The amount of blood pumped by the heart in one heartbeat.*

Sudafed™ (Brand name of pseudoephedrine)

Sympathetic innervation *The supply of nerve fibers and terminals in a tissue or organ.*

Sympathetic nerve terminals *Endings of sympathetic nerves, from which the chemical messenger, norepinephrine (noradrenaline) is released.*

Sympathetic nerve traffic *Nerve impulses in sympathetic nerve fibers.*

Sympathetic nerves *Nerves of the sympathetic nervous system.*

Sympathetic nervous system *One of the two branches of the autonomic nervous system, responsible for many "automatic" functions such as constriction of blood vessels when a person stands up.*

Sympathetic neurocirculatory failure *Failure of regulation of the heart and blood vessels by the sympathetic nervous system.*

Sympathetic neuroimaging *Visualization of the sympathetic nerves in the body.*

Sympathetic vasoconstrictor tone *The status of constriction of blood vessels as a result of traffic in sympathetic nerves.*

Sympathoadrenal system (also called sympathico-adrenal system or sympathoadrenomedullary system) *A name for the sympathetic nervous system and adrenomedullary hormonal system acting as a unit.*

Sympathomimetic amine *A type of drug that acts in the body like stimulation of the sympathetic nervous system.*

Sympathotonic orthostatic intolerance *Inability to tolerate standing up that is associated with excessive activity of the sympathetic nervous system.*

Syncope *Sudden loss of consciousness due to decreased flow of blood to the brain.*

Syndrome *A set of symptoms that occur together.*

Systolic blood pressure *The peak blood pressure while the heart is pumping out blood.*

-T-

TH (Abbreviation for tyrosine hydroxylase)

Thermoregulatory sweat test (TST) *A test based on the ability of the patient to produce sweat in response to an increase in environmental temperature.*

Tilt-table testing *A test where the patient is tilted on a platform, to assess the ability of the patient to tolerate and respond appropriately to standing up.*

Tomographic scans *A type of scan where the body is visualized in slices.*

Total peripheral resistance *The total amount of resistance to blood flow.*

Tremor *Involuntary shaking.*

Trimethaphan (Arfonad™) *A particular type of drug that blocks chemical transmission in ganglia.*

Trimethaphan infusion test *A test where trimethaphan is given by vein, to assess the effects on blood pressure.*

Tyrosine hydroxylase (TH) *An important enzyme required for production of the catecholamines dopamine, norepinephrine (noradrenaline), and epinephrine (adrenaline) in the body.*

-U-

Uptake-1 *Uptake of norepinephrine and related chemicals by way of the cell membrane norepinephrine transporter, such as uptake into sympathetic nerves.*

-V-

Vagal parasympathetic outflow *Traffic in the vagus nerve, a main nerve of the parasympathetic nervous system.*

Valsalva maneuver *A type of maneuver where the person blows against a resistance or strains as if trying to have a bowel movement, resulting in an increase in pressure in the chest and a decrease in the ejection of blood by the heart.*

Vascular resistance *Resistance to blood flow.*

Vasoconstriction *Tightening of blood vessel walls.*

Vasodepressor syncope (Same as Neurocardiogenic Syncope and Neurally Mediated Syncope).

Vasopressin (the same as antidiuretic hormone) *A hormone released from the pituitary gland at the base of the brain that stimulates retention of water by the kidneys and increases blood pressure by constricting blood vessels.*

Ventricles *The main pumping chambers of the heart. The right ventricle contains blood pumped by the heart to the lungs. The left ventricle contains blood pumped by the heart to the rest of the body. The left ventricular myocardium is the main pumping muscle of the heart.*

Venous return *Return of blood to the heart by the veins.*

Vesicular monoamine transporter (VMAT) *A particular type of protein in the walls of storage vesicles that transports chemicals such as norepinephrine into the vesicles.*

VMAT (Abbreviation for the vesicular monoamine transporter)

-Y-

Yohimbe bark *A naturally occurring form of yohimbine that is available as an over-the-counter herbal remedy.*

Yohimbine *A drug that blocks alpha-2 adrenoceptors in the brain, in blood vessel walls, and on sympathetic nerve terminals.*

Yohimbine challenge test *A test where yohimbine is administered and the effects are measured on blood pressure and plasma levels of chemicals such as norepinephrine (noradrenaline).*

