

**STRESS AND HYPERTENSION****Mr. Israel Jeba Prabu\* & Dr. C.P Sharma\*\****\*Ph.D. Scholar, Himalayan University, Itanagar, Arunachal Pradesh, India & Associate Professor, Bee Enn college of Nursing, Jammu, India.**\*\*Research Supervisor, Himalayan University, Itanagar, Arunachal Pradesh, India.*DOI: <http://doi.org/10.47211/idcij.2021.v08i01.009>**ABSTRACT**

*Stress is body's reaction to a challenge or demand. In short bursts, stress can be positive, such as when it helps to avoid danger or meet a deadline. High blood pressure (BP) is ranked as the third most important risk factor for attributable burden of disease in south Asia (2010). Hypertension (HTN) exerts a substantial public health burden on cardiovascular health status and healthcare systems in India.*

*Sympathetic responses to acute stress are well documented, but the process by which stress contributes to sustained BP elevation over time is not well understood. It may be repeated activation of this system, failure to return to resting levels following stressful events, failure to habituate to repeated stressors of the same type, or some combination that is responsible for the development of hypertension. A variety of free meditation or mindfulness apps are available to download onto cell phone or tablet. There are also plenty of guided meditations available online. When we don't get enough rest, it affects our mood. Being tired can also impair judgment and cause brain fog. It's important to take time for them self and make sure individual getting enough rest*

**Key words:** awareness, control, hypertension, stress.

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**INTRODUCTION-**

**Stress** is a feeling of emotional or physical tension. It can come from any event or thought that makes feel frustrated, angry, or nervous. Stress is body's reaction to a challenge or demand. In short bursts, **stress** can be positive, such as when it helps to avoid danger or meet a deadline. Stress can be a motivator. It can be essential to survival. The "fight-or-flight" mechanism can tell us when and how to respond to danger. However, if this mechanism is triggered too easily, or when there are too many stressors at one time, it can undermine a person's mental and physical health and become harmful.

Stress is a normal reaction the body has when changes occur. It can respond to these changes physically, mentally, or emotionally.

**Incidence:-**

High blood pressure (BP) is ranked as the third most important risk factor for attributable burden of disease in south Asia (2010). Hypertension (HTN) exerts a substantial public health burden on cardiovascular health status and healthcare systems in India. The WHO rates HTN as one of the most important causes of premature death worldwide. The Global and Regional Burden of Disease and Risk Factors study (2001), in a systematic analysis of population health data for attributable deaths and attributable disease burden, has ranked HTN in south Asia as second only to child underweight for age. About 33% urban and 25% rural Indians are hypertensive. Of these, 25% rural and 42% urban Indians are aware of their hypertensive status. Only 25% rural and 38% of urban Indians are being treated for hypertension.

**Causes of stress –**

- Health issue
- Family disturbance
- Financial crisis
- Separation of spouses
- Single parenthood
- Social isolation
- Poverty
- War and violence
- Cultural differences
- Political unstably
- Job crisis
- All unfavorable condition

**Hypertension-**Hypertension, also known as high blood pressure (HBP), is a long-term medical condition in which the blood pressure in the arteries is persistently elevated. High blood pressure typically does not cause symptoms. Long-term high blood pressure, however, is a major risk factor for coronary artery disease, stroke, heart failure, atrial fibrillation, peripheral arterial disease, vision loss, chronic kidney disease, and dementia.

**Causes –**

- Kidney disease
- Diabetes
- Obstructive sleep apnea
- Glomerulonephritis – damage to the tiny filters inside the kidneys
- Narrowing of the arteries supplying the kidneys
- Hormone problems – such as an underactive thyroid, an overactive thyroid, cushing's syndrome, acromegaly, increased levels of the hormone aldosterone hyperaldosteronism, and phaeochromocytoma
- Lupus – a condition in which the immune system attacks parts of the body, such as the skin, joints and organs
- Scleroderma – a condition that causes thickened skin, and sometimes problems with organs and blood vessels.
- Medicines such as contraceptive pill,steroids,NSAIDs, SSNRIetc

**Stress and hypertension-** The impact of stress on the development of hypertension is believed to involve a sympathetic nervous system response, in which release of catecholamine's leads to increased heart rate, cardiac output, and BP.<sup>3</sup> Sympathetic responses to acute stress are well documented, but the process by which stress contributes to sustained BP elevation over time is not well understood. It may be repeated activation of this

system, failure to return to resting levels following stressful events, failure to habituate to repeated stressors of the same type, or some combination that is responsible for the development of hypertension.

**Sandip Bhelkar, Sonal Deshpande et al** conducted a study on “**Association between Stress and Hypertension among Adults More Than 30 Years**” which concludes that High stress is significantly associated with hypertension and is an independent risk factor for hypertension<sup>4</sup>.

**Justin Thomas, Gabriel S. Tajeu et al** conducted a study on “**Association between High Perceived Stress over Time and Incident Hypertension in Black Adults**” which revealed that higher perceived stress over time was associated with an increased risk of developing hypertension.

#### **Combined symptom of stress and hypertension –**

- Sleep problems
- Depression or anxiety
- Nausea
- Diarrhea
- Headaches
- Heart palpitations
- Body aches
- Weight gain
- Type 2 diabetes

#### **How to reduce stress to control hypertension-**

**Get some exercise:** Exercise is good for heart. Not only does it help reduce stress and lower blood pressure, it makes feel good. When individual exercise, his brain releases endorphins, the chemicals responsible for boosting mood. Aim for 20 minutes a day, 3 to 4 times a week, of physical activity like walking, running, swimming or lifting weights to get blood pumping.

**Reduce caffeine intake:** While many people rely on caffeine to get them through the day, too much caffeine can increase stress levels. Coffee isn't the only culprit — tea, chocolate, many sodas and certain medications contain caffeine. Cutting down intake can lower blood pressure and lessen some of the physical symptoms of stress, like an increased heart rate or feeling jittery.

**Tickle funny bone:** They say laughter is the best medicine — and in this case, it's a great one. Laughing boosts mood and just makes feel better. Read a joke book, get silly with family or watch favorite comedy, and laugh the stress away.

**Talk to the people:** Phone calls, video chats and texts are all great ways to stay connected with close ones, even for just a few minutes. Take time to talk about anything — even discussing ordinary topics like what they made for dinner can help lighten mood.

**Breathe:** When individual feeling stressed, practicing deep breathing or meditation for a few minutes a day can help calm him. A variety of free meditation or mindfulness apps are available to download onto cell phone or tablet. There are also plenty of guided meditations available online.

**Get enough rest:** When we don't get enough rest, it affects our mood. Being tired can also impair judgment and cause brain fog. It's important to take time for them self and make sure individual getting enough rest. A short afternoon nap or going to bed a few minutes earlier can give you the restful sleep your body needs.

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