

# Clinical Report for Participant 11

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## Clinical Report

The analysis of the participant's physiological data over 659 measurements revealed that they experienced stress in approximately 36% (239 out of 659) of the recorded instances. The non-stressed instances accounted for 64% (420 out of 659). The machine learning model, trained to classify stressed and non-stressed measurements, demonstrated high accuracy in both classification categories with a weighted F1-score of 0.97, suggesting a robust performance.

## Classification Results

The classification report indicates that the model was highly precise (above 95%) and recalling (around 97%) in identifying both stressed and non-stressed instances. This demonstrates that the model can effectively distinguish between periods of stress and relaxation, providing valuable insights into the participant's physiological state.

## Abnormal Patterns

An abnormal stress pattern was detected in the participant's data. Prolonged periods of stress may have negative impacts on overall health and well-being. Chronic stress is associated with various medical conditions, including cardiovascular diseases, diabetes, obesity, depression, anxiety disorders, and impaired immune function. It is essential to address these prolonged stress periods to mitigate potential health risks.

## Recommendations

1. 1. Stress Management Techniques: Implement stress management techniques such as deep breathing exercises, progressive muscle relaxation, guided imagery, mindfulness meditation, or yoga to help manage and reduce stress levels.
2. 2. Adequate Rest and Sleep: Ensure that you get adequate sleep each night (7-9 hours for adults) and take short naps during the day if necessary.
3. 3. Regular Exercise: Incorporate regular physical activity into your daily routine, aiming for at least 150 minutes of moderate-intensity aerobic exercise per week.

4. 4. Healthy Eating: Maintain a balanced diet rich in fruits, vegetables, lean proteins, and whole grains to support overall health and help manage stress levels.

5. 5. Social Connections: Foster strong relationships with family, friends, or support groups to reduce feelings of isolation and provide emotional support during challenging times.

6. 6. Limit Stressors: Identify and minimize exposure to potential stressors in your environment by setting boundaries, delegating tasks, or seeking professional help when needed.

7. Continuous monitoring and analysis of the participant's physiological data will aid in tracking progress, refining recommendations, and addressing any emerging patterns of stress or other health concerns. It is crucial for the participant to take an active role in managing their stress levels to improve overall well-being and reduce the risk of associated medical conditions.



