Individual Stress Response Clinical Assessment

Subject ID: S3 | WESAD Multimodal Analysis

Analysis Date: August 22, 2025 | Sessions Analyzed: 93 | Report Generated by: WESAD Analysis System

Subject Information

Subject ID	S3
Age	27 years
Gender	Male
BMI	23.1 kg/m²
Height	173 cm
Weight	69 kg
Sessions Completed	93
Conditions Tested	Baseline, Stress, Meditation, Amusement

Executive Summary

This report presents a comprehensive analysis of multimodal physiological responses for Subject S3, a 27-year-old male participant from the WESAD stress response study. The analysis encompasses baseline physiological measurements, acute stress response patterns, and recovery characteristics across multiple sensor modalities.
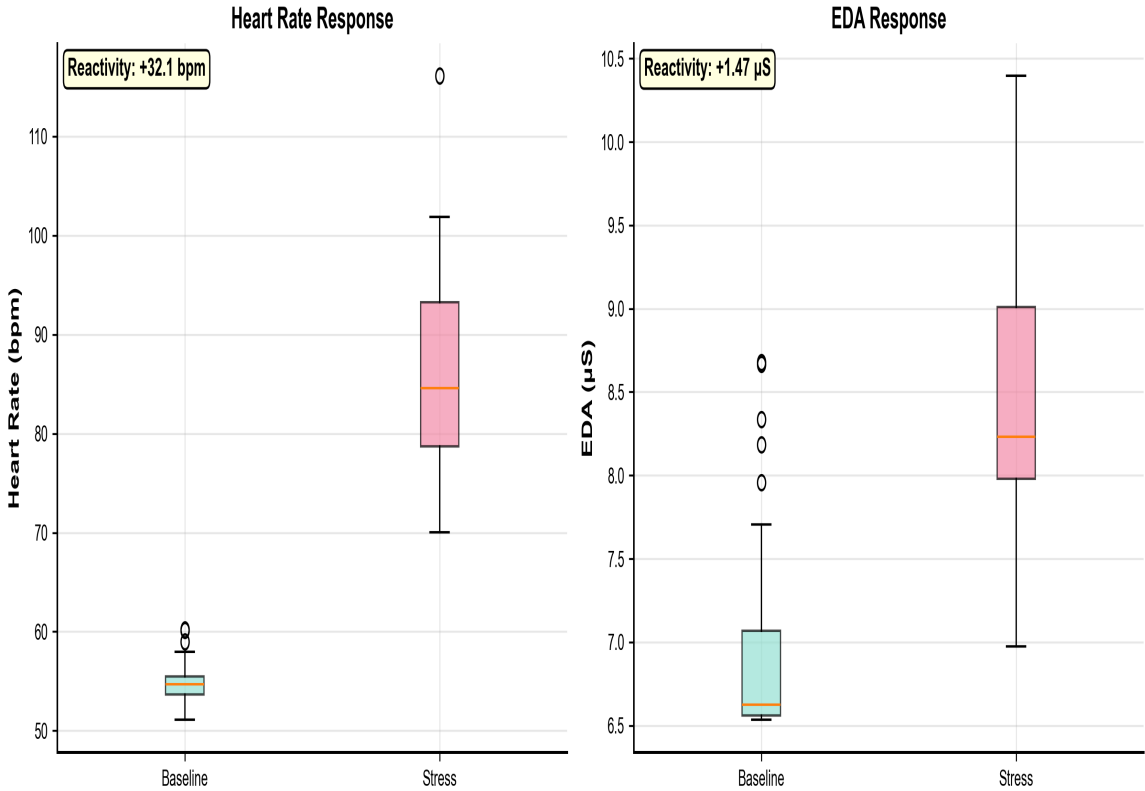
Metric	Value	Clinical Interpretation
Resting Heart Rate	55.0 bpm	Below Normal
HR Stress Reactivity	+32.1 bpm (+58.4%)	Unknown
EDA Stress Response	+1.47 µS (+21.1%)	Unknown
Core Temperature	31.3°C	Within Normal Range

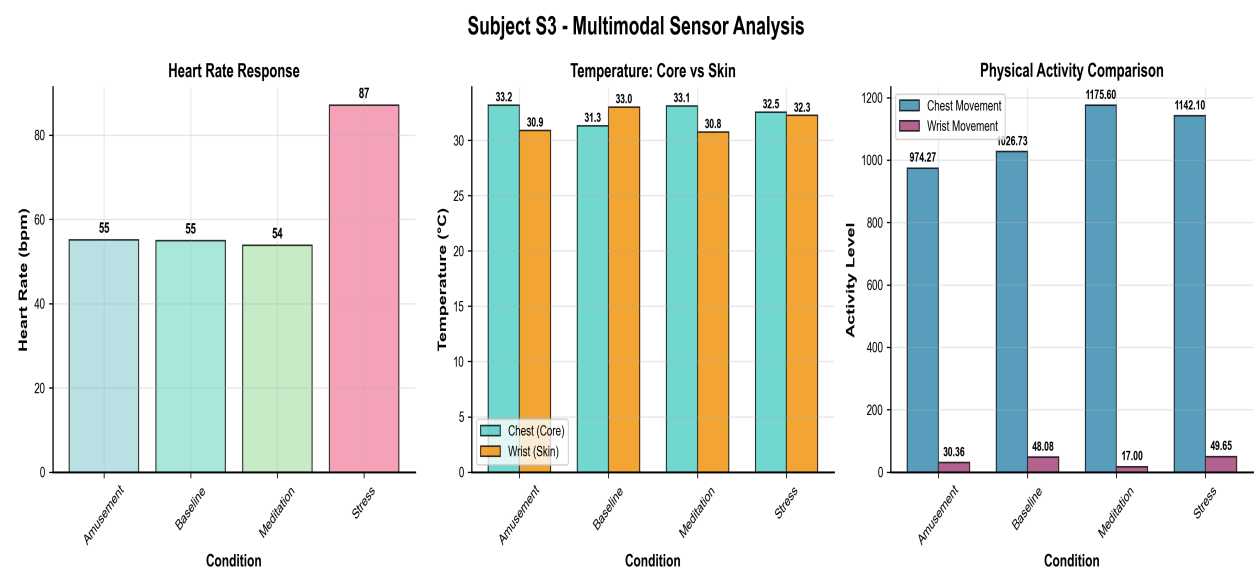# Physiological Response Analysis

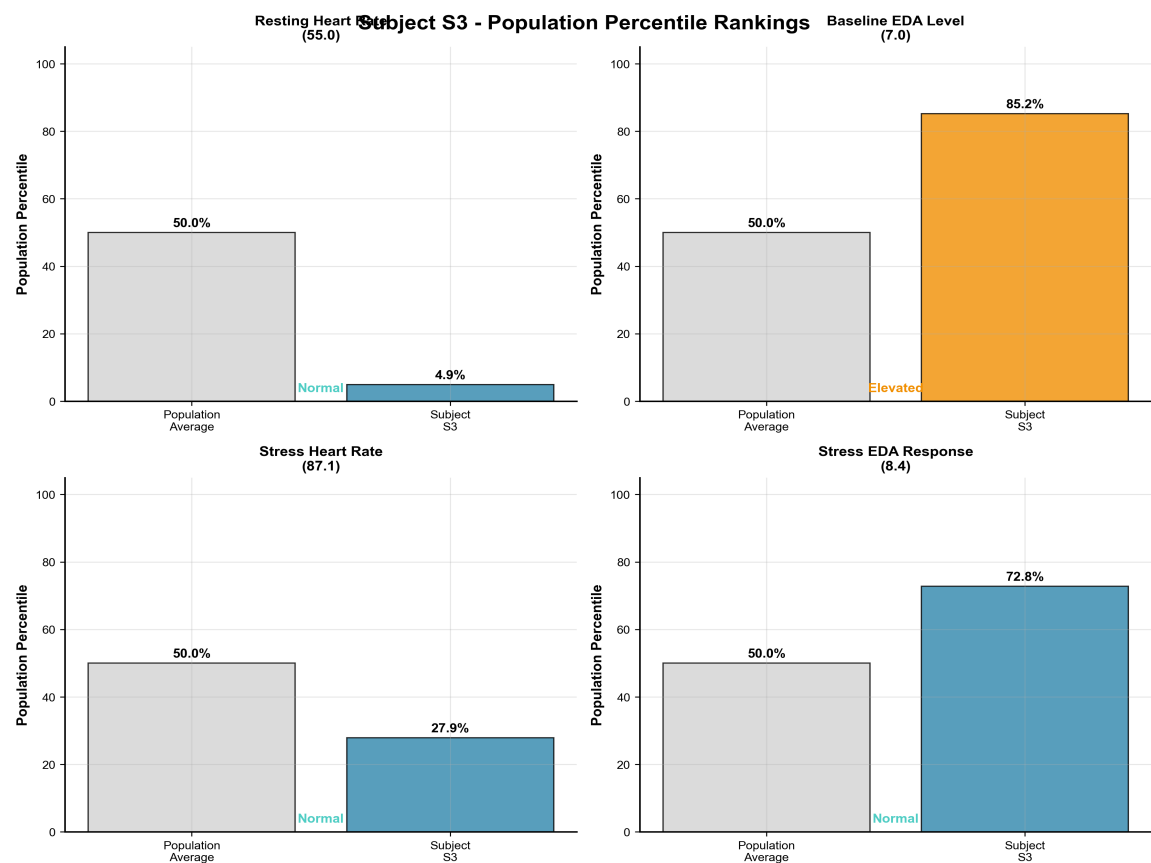Subject S3 - Physiological Response Profile
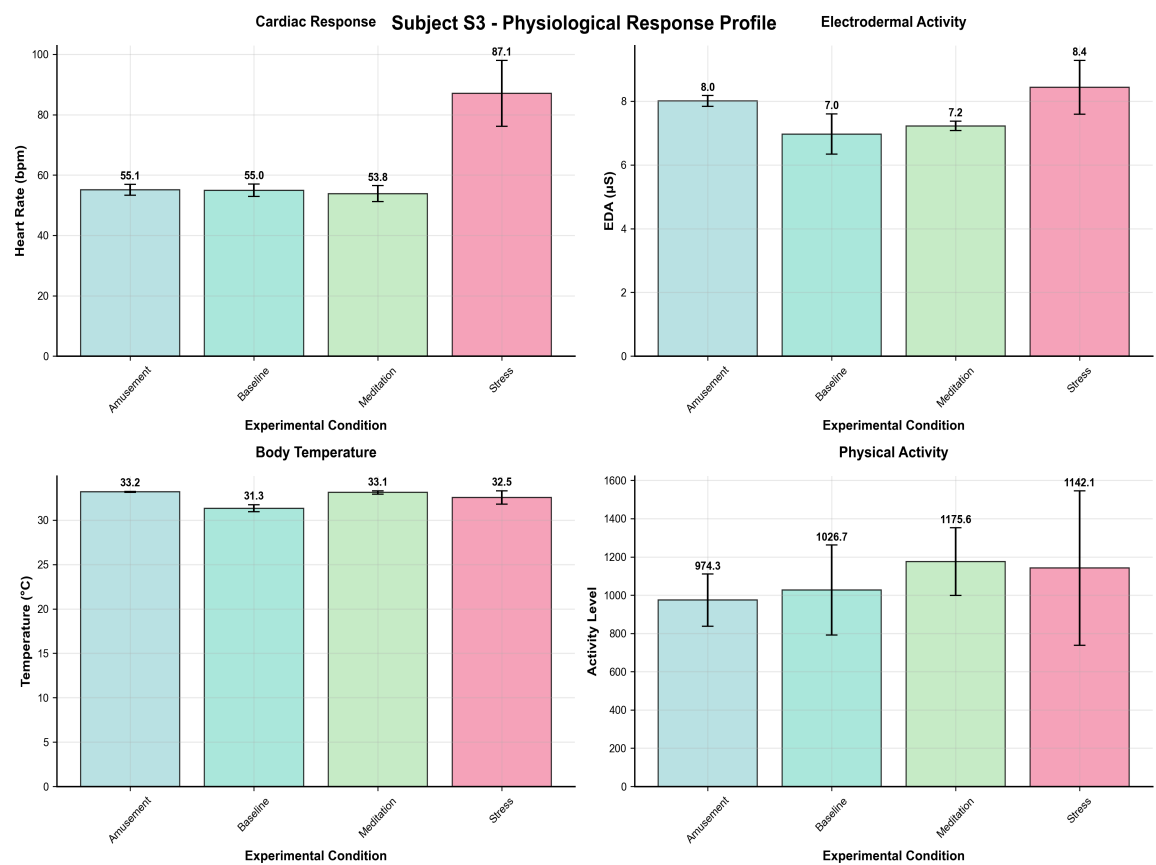
Stress Response Analysis

Subject S3 - Baseline vs Stress Response

Heart Rate Response

Reactivity: +32.1 bpm

Heart Rate (bpm)

EDA Response

Reactivity: +1.47 µS

EDA (µS)

Multimodal Sensor Analysis

Subject S3 - Multimodal Sensor Analysis

Heart Rate Response

Condition	Heart Rate (bpm)
Amusement	55
Baseline	55
Meditation	54
Stress	87

Temperature: Core vs Skin

Condition	Chest (Core)	Wrist (Skin)
Amusement	33.2	30.9
Baseline	31.3	33.0
Meditation	33.1	30.8
Stress	32.5	32.3

Physical Activity Comparison

Condition	Chest Movement	Wrist Movement
Amusement	974.27	30.36
Baseline	1026.73	48.08
Meditation	1175.60	17.00
Stress	1142.10	49.65

Population Comparative Analysis

Subject S3 - Population Percentile Rankings

Resting Heart Rate (55.0) — Population Average: 50.0%, Subject S3: 4.9% (Normal)

Baseline EDA Level (7.0) — Population Average: 50.0%, Subject S3: 85.2% (Elevated)

Stress Heart Rate (87.1) — Population Average: 50.0%, Subject S3: 27.9% (Normal)

Stress EDA Response (8.4) — Population Average: 50.0%, Subject S3: 72.8% (Normal)

Clinical Interpretation & Recommendations

Overall Stress Response Assessment

Stress Response Classification: MILD ELEVATION

Mildly elevated stress response with some parameters showing above-average reactivity: atypical resting heart rate (below normal). While not immediately concerning, these patterns may warrant monitoring and lifestyle interventions to optimize stress management.

Key Findings

• Heart Rate Stress Response: +32.1 bpm (+58.4% increase from baseline)

• Electrodermal Activity Response: +1.47 µS (+21.1% increase)

• Resting Heart Rate: 55.0 bpm (below normal)

• Population Ranking: 4.9th percentile for resting heart rate

Recommendations

• Implement stress reduction techniques such as mindfulness meditation or deep breathing exercises

• Evaluate work-life balance and identify potential chronic stressors

• Consider regular cardiovascular exercise to improve stress resilience

• Follow-up assessment in 6 months to monitor progress

Report Analysis and Generation:

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