

# Kadar natrium serum pada pekerja yang terpapar panas di pabrik peleburan baja PT. BDJ = Serum sodium level of workers exposed to heat at a steel melting plant PT. BDJ

Nusye E. Zamsiar, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=81332&lokasi=lokal>

---

## Abstrak

### <b>ABSTRAK</b>

Ruang lingkup dan cara penelitian : Pemaparan panas di lingkungan kerja dapat menimbulkan berbagai keluhan dan gangguan kesehatan. Salah satu keluhan yang ditemukan adalah kram otot, yang diduga erat hubungannya dengan penurunan kadar natrium serum. Penelitian ini bertujuan untuk mendapat data tersebut agar dapat dimanfaatkan sebagai salah satu upaya pencegahan sebelum terjadinya keluhan atau gangguan kesehatan. Penelitian dilakukan secara kuasi eksperimental dengan menggunakan " non randomized controlled group pre-test post-test design" . Untuk melihat tingginya tingkat pemaparan panas di lingkungan kerja digunakan nilai "heat stress index" ; sedangkan untuk melihat pengaruhnya terhadap tenaga kerja yang terpapar dilakukan dengan menggunakan kuesioner, pengamatan, pengukuran dan pemeriksaan kadar natrium dalam serum secara laboratoris (sebelum dan sesudah bekerja) serta kadar natrium dalam keringat.

Hasil dan kesimpulan : Tingkat pemaparan panas di lingkungan kerja PT BDJ telah melampaui batas yang diperkenankan. Hasil penelitian yang dilakukan terhadap 98 subyek yang terpapar panas dan 44 subyek yang tidak terpapar menemukan adanya kecenderungan untuk menurunnya kadar natrium serum serta timbulnya keluhan kram otot pada subyek yang terpapar panas dengan uji statistik yang bermakna. Faktor-faktor yang berpengaruh terhadap penurunan kadar natrium serum adalah jenis sarapan pagi yang dikonsumsi, luas permukaan tubuh serta besarnya kehilangan natrium melalui keringat.; Serum Sodium Level Of Workers Exposed To Heat At A Steel Melting Plant PT. BDJScope and method: Heat exposure has led to many symptoms and health problems. Muscle cramps as one of these symptoms is reportedly strongly Associated with reduced sodium levels in serum.

### <hr><i><b>ABSTRACT</b></i>

Scope and method: Heat exposure has led to many symptoms and health problems. Muscle cramps as one of these symptoms is reportedly strongly Associated with reduced sodium levels in serum.

The purpose of this quasi experimental study, using a randomized controlled group pre-test post-test design, is to asses the nature of serum sodium level of workers exposed to a hot climate in the working environment. It is hoped that results-of this study will be helpful in the strategic planning of early preventive measures.

Heat exposure level in the working environment was measured by using the "heat stress index? Questioners, physical examinations and quantitative measurements of sodium levels in serum and in sweat; have been used to evaluate health status. Measurement of serum sodium levels was performed before and after work.

Result and conclusions: Heat exposure level in the working environment exceeded the threshold limit value. Data from 98 workers of the exposed group compared to data from 44 workers of control group, revealed a definitive trend of reduced serum sodium levels of workers from the exposed group. Muscle cramps was significantly associated with reduced sodium levels in serum. Factors associated with reduced serum sodium levels are type of food consumed for breakfast, body measurements and sodium loss through sweat.</i>