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Mass Caffeination

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### Mass Caffeination

#### Abstract

This poem reflects on caffeine intake in modern society from the perspective of a pharmacologist. It is a free verse, concrete poem that communicates the science of caffeine through both words and visual images.

#### Author/Artist Bio

Michael J Leach is a statistician, health researcher, and poet with a PhD in Pharmacy and a keen interest in STEAM. Michael works at the Loddon Mallee Integrated Cancer Service, Bendigo Health and undertakes research through Monash University School of Rural Health. His poems have appeared in medical journals, including the Medical Journal of Australia and Medical Humanities, as well as literary journals, including Cordite Poetry Review and Meniscus Literary Journal. He lives in his hometown of Bendigo, Australia.

#### Keywords

Pharmacology, pharmacodynamics, botany, caffeine, poetry

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#### **Mass Caffeination**

Michael J. Leach

Here in this open -air sanctuary of societal approval,

we observe

or partake in

the mass consumption

of a certain readily available

psychostimulant.

Our daily routines
feature the regular
infusion and dissolution
of certain botanicals

into hot water,

giving bitter brews

that one may choose

to sweeten

(naturally

or otherwise).

When one consumes the aromatic tea of Southwest China/ cocoa of Central America/ coffee of Northeast Africa, one is in fact casually taking a non-prescription drug: a xanthine called caffeine. So it may pay for us to know something

of caffeine's pharmacodynamics.

After absorbing

thru the small intestine,

flowing in the blood

s t r e a m and crossing

the blood-----brain barrier, the C

C Y

## I C

L

molecules

of caffeine bind to adenosine

receptors in the brain.

This process,

known as antagonism,

prevents adenosine

(an endogenous protein)

from locking

into its binding

sites and eliciting

its natural effect -

CNS depression.

Thus,

at approximately an hour post-consumption, the caffeine reaches sufficiently high blood plasma concentrations to effectively fight fatigue and focus the faculties.

We can take a pharmacological view of coffee/cocoa/tea as, essentially, just a vehicle for a popular chemical – that dependable xanthine that gives a welcome buzz.

We're as free as cathemeral owls to reap the benefits of one of the few legally non-prescription performance-enhancing drugs.