

Date: 01/10/08 04:43:09

To: [Luis Szyfres](#)

Subject: Nasopharyngeal Carcinoma rates in Guam

Dear Mr. Szyfres,

I am an RN in Hawaii. I have a 16 year old non-smoking patient who was flown in from Guam with a diagnosis of Nasopharyngeal Carcinoma. His mother feels the cancer may be a result of environmental chemicals in Guam and reports an increase in this type of cancer. She would like more information, and so would I. I am also a nurse practitioner student at the University of Hawaii, and feel this may interesting research for me later on down the road. Also, I feel that if this is the case, I would like to educate my fellow coworkers here at Tripler and bring awareness to the issue. We often treat patients from Guam and the Marshall Islands here. I would appreciate any resources or information you could provide for the family or me.

Very Respectfully, Ali Cosma

FROM THE DESK OF: LUIS SZYFRES, M.D., M.P.H.

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BRIEF SUMMARIES OF CHAPTER 72 OF THE BOOK:

"GUAM, THE LAND OF THE ROSARIES":

**STUDY OF THE CONTAMINATION OF GUAM'S WATER, SOIL, AIR, AND FOOD
WITH TOXIC CHEMICALS KNOWN TO REPRESENT A SERIOUS HEALTH
RISK TO THE HUMAN POPULATION, ANIMALS, AND PLANTS.**

by

Luis Szyfres, MD, MPH

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- This document presents concrete evidence, mainly from the United States Federal Government, about the alarming contamination of Guam's environment with a large number of very dangerous Toxic Chemicals.

- **Unknown to the residents of Guam, their environment has been contaminated with toxic chemicals for decades. The air they breathe, the water they drink, and the food they eat, is contaminated with toxic chemicals associated with severe diseases & death.**
- **This document provides detailed information of the Toxic Chemicals in Guam's Environment, all of them are "above" the safe limits established by U.S. and Guam EPA. Ironically, these are precisely the agency that sets up the safe limits for the toxic chemicals, is in charge of monitoring them, and if they are "above" the safe limits, to take immediate action to remediate the health threats to the population.**

DISCLAIMER

The problem of the contamination of Guam's environment with toxic chemicals, is a very sensitive socio-economic-political issue. This is due to several factors, including:

1. The majority of the sources of contamination is from the U.S. Federal Government/Military Landfills, and operation of the military bases.
2. The perception of Guam's Government and business, is that if the information on toxic chemicals is made public, it would damage the local economy. This perception is erroneous because, the large amount of severe and chronic diseases in the community associated with toxic chemicals, result in staggering costs for healthcare, loss of working days, etc. On the other hand, while Guam's soil, water, air, and food, remains contaminated with toxic chemicals, it can not develop economically.

For the reasons mentioned above, a special effort has been identify and incorporate data from official U.S. Federal and Guam government institutions, i.e. the University of Guam, Guam EPA, the U.S. Agency for Toxic Substances and Disease Registry, the U.S. Environmental Protection Agency, the U.S. National Academy of Science, the U.S. National Research Council, and the U.S. Department of Defense.

- **According to the U.S. Census of 2000 (3), the population of 65 + years are for:**

⇒US-Continental: 12.43 %

⇒US-Guam: 5.30% (or 250 % lower than in continental US).

This data raises the first question: why so few residents of Guam get to be old?

- **Guam lacks registries for the majority of the diseases known to have a very high incidence in Guam. Despite that, the comparison of the health data that is available, to that of continental United States, shows that many chronic diseases in Guam have epidemic proportions. For example, the Government of Guam (4) report on death rates that are higher in Guam than in Continental U.S., include:**

1. Nasopharyngeal cancer..... 1999 % higher in Guam

2. Cervical Cancer.....65 % higher in Guam

3. Uterine Cancer.....55 % higher in Guam

4. Depression/Suicides.....67 % higher in Guam
5. Liver Cancer.....41 % higher in Guam
6. Diabetes.....150 % higher in Guam.
7. Ischemic Heart Disease.....15 % higher in Guam
8. Kidney Failure.....12 % higher in Guam.

9. **Neurological Diseases (5) (7):**

since the early 1950's, the population of Guam began to be affected by a group of severe, progressive, and fatal neurological disorders including Parkinson's Disease, Amiotrophic Lateral Sclerosis, Alzheimer's Disease, and Multiple Sclerosis, with a rate of reported new cases over 50 times higher than the average in the rest of the world. The sudden occurrence of this diseases affecting so many people, point to an environmental factor. The Mayo Clinic conducted a very thorough study, including serial studies of the brains of deceased people from Guam. The results showed the presence of "Heavy Metals" in the brains (i.e. Aluminum, Manganese). The critical question is which are the sources of the Heavy Metals that were contaminating Guam's environment. The question lead to many controversial hypothesis.

10. **Lead Poisoning:**

studies conducted in Guam, raise the issue of elevated Blood Lead Levels.

11. **Hyperuricemia(6):**

the results of a study determined that the accumulation of lead is associated with an increased uric acid level.

A. RATIONALE, HYPHESIS, AND OBJECTIVE OF THE STUDY

The study is based in the identification of the needed data, the collection of information, and the analysis, critical epidemiological review, and presentation the results.

The present study is aimed at determining if there is an association between source/s of environmental contamination associated the epidemic of chronic diseases in the population of Guam, based in the following facts:

It is a basic epidemiological concept that diseases in general, and the excess in the number of cases documented in Guam, may be due to:

1. Host Factors (i.e. genetic makeup, nutrition, immunological status of the population),
2. Environmental Factors (i.e. contamination of the environment of a given population with physical, chemical, or biological agents),
3. A combination of Host and Environmental Factors.

Host Factors- Unlikely, because:

- a) All the mentioned diseases are not only common, but in many cases fatal. It is obvious that such a lethal genetic disorder would have exterminated all the affected population in a short period.

- b) As the epidemics of chronic diseases are very different in nature, from cancers to ischemic heart diseases), it is very unlikely that so many people have so many and different genetic abnormalities, and/or abnormal immunological status, and/or a dietary habits.
- Environmental Factors, likely, because:
- a) It is the only viable scientific explanation for so many people with so many diseases of very different in nature.
- b) After the issue of fallout radiation from the nuclear tests in Micronesia was raised, the President of the U.S. appointed a “Blue Ribbon Panel”. The panel concluded that Guam is exposed to nuclear radiation.
- c) Radiation is carcinogenic and teratogenic, but does not explain the presence of toxic chemicals in the organs of the population of Guam, like heavy metals in the brain of community members with severe neurological disorders. Knowing that the environment of Guam is contaminated with Toxic Chemicals, the next obvious step trying to identify the sources of the chemicals.
- d) Millions of tons of hazardous wastes have been produced in the United States since World War II and have been dispersed into the air, into water, and on and under the ground. Much of this waste has accumulated in uncontrolled hazardous waste sites, and these sites are widespread across the nation. (32)
- e) The U.S. Environmental Protection Agency (EPA) has identified more than 15,000 such sites; 1,371 are proposed for listing or are listed already on the National Priorities List (NPL). Assessment and remediation of these sites is proceeding under the direction of the U.S. EPA, with support of the national Superfund Trust. (32)
- f) The majority (65-70%) of uncontrolled waste sites in the United States and its territories, are waste storage and treatment facilities (including landfills). Many of these properties have been abandoned, and most have more than one major chemical contaminant. (32)
- g) The National Research Council has identified 17,482 contaminated sites at 1,855 military installations. (32)
- h) Some of these sites cover large geographic areas and are contaminated with very complex mixtures of wastes.

GUAM:
**LIST OF TOXIC CHEMICALS, PRESENT IN THE ISLAND IN VERY HIGH
CONCENTRATIONS**

**(ALL ABOVE ANY NATIONAL/INTERNATIONAL REGULATIONS). THE
MAJORITY OF THEM
THE MOST POTENT CARCINOGENS (CATEGORY A or 1, US. EPA and WHO).**

1. DIOXINS
2. ALUMINUM
3. BARIUM
4. ANTIMONY
5. ARSENIC
6. CADMIUM
7. COPPER
8. CHROMIUM
9. LEAD
10. MANGANESE
11. METALS: NOT SPECIFIED
12. NICKEL
13. PESTICIDES: NOT SPECIFIED
14. POLYCHLORINATED BIPHENYLS (PCBs)
15. POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)
16. SELENIUM
17. SILVER
18. THALLIUM
19. TETRACHLORO DIBENZENO DIOXINS (TCDD)
20. TOTAL PETROLEUM HYDROCARBONS (TPH)
21. VANADIUM
22. VOLATILE ORGANIC COMPOUNDS (VOC)-A-TRICHLOROETHYLENE (TCE)
23. VOLATILE ORGANIC COMPOUNDS (VOC)-B-
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES (BTEX)

**24. VOC AND SVOC (SEMI-VOLATILE ORGANIC COMPOUNDS –C-
NOTSPECIFIED.**

25. ZINC

26. CYANIDE