

Non-Space Radiation Exposures

- X-ray examinations
- Nuclear medicine procedures
- Bone densitometry
- Simulation of extravehicular activities in atomic bomb craters
- High altitude airplane flights
- Non-ionizing radiation

X-ray examination

- **On-site**
 - Diagnostic X-rays
 - Dental X-rays
 - Astronaut candidate screening
- **Off-site**
- **Organ doses are calculated**

ENTERED IN COMPUTER _____ DATE _____

NAME: _____

SEX _____ OCCUPATIONAL _____

NUMBER _____ PROJECT. CODE _____

VIEW _____ MA _____

SEC. _____ KVP _____

SID _____ REMARKS: _____

HB _____ HV _____

DIAGNOSIS _____

DIAGNOSTIC X-RAY DATA SHEET
(THIS FORM IS SUBJECT TO THE PRIVACY ACT OF 1974)

INSTRUCTIONS FOR USE

This form is to be used as a means of documenting the x-ray techniques(s) with which diagnostic exam(s) are performed. Please fill in the technique factors for each projection view, i.e., PA, AP, LAT, and OBLQ.

TO BE COMPLETED BY JSC FLIGHT MEDICINE CLINIC NASA

NAME (Last - First - MI)	DATE OF EXAM
EXAM	REFERRING PHYSICIAN

TO BE COMPLETED BY TECHNOLOGIST PERFORMING EXAM(S)

EXAM	NO. FILMS	PROJ VIEW	mA	kVp	s	STFD (IN)	FILM SIZE

Please include the HVL-1 and mR/mAs as a function of kVp, for several kVp values on the particular unit with which the above examination(s) were performed.

kVp	HVL-1 (mm Al)	mR/mAs	Remarks

SPECIAL INSTRUCTIONS FOR REFERRED INSTITUTION

Please forward this data sheet to:

Flight Medicine Clinic / SD2
NASA/Johnson Space Center
Houston, Texas 77058

(713) 483-7999

Nuclear medicine procedures

- **Diagnosis (Off-site)**
- **Radiation therapy (Off-site)**
- **Payload studies – radiotracers for studying plasma volume, red blood cell survival etc.**
- **Organ doses are calculated**

RADIOPHARMACEUTICAL DATA SHEET
 (THIS FORM IS SUBJECT TO THE PRIVACY ACT OF 1974)

INSTRUCTIONS FOR USE

This form is to be used as a means of documenting the radiopharmaceutical(s) with which nuclear medicine exam(s) are performed.

TO BE COMPLETED BY JSC FLIGHT MEDICINE CLINIC/NASA

NAME (Last - First - MI)	DATE OF EXAM
EXAM	REFERRING PHYSICIAN

TO BE COMPLETED BY TECHNOLOGIST PERFORMING EXAM(S)

RADIOPHARMACEUTICAL USED	ADMINISTERED ACTIVITY (mCi)	ROUTE OF ADMINISTRATION (IV,IM,ORAL)
RADIOISOTOPE PURITY (%)	RADIOCHEMICAL PURITY (%)	MANUFACTURER
LOT NUMBER		

SPECIAL INSTRUCTIONS FOR REFERRED INSTITUTION

Please forward this data sheet along with a copy of the radiopharmaceutical product insert sheet to:

Flight Medicine Clinic / SD2
 NASA/Johnson Space Center
 Houston, Texas 77058

(713) 483-7999

Bone densitometry

- Iodine-125
- Gd-153
- X-rays
- Dose ~ 0.1 mrem

Simulation of extravehicular activities in atomic bomb craters

- Time: 1970
- Place: Nevada
- Dose ~ 0.05 rad

High altitude airplane flights

- Fly between Houston and KSC at 30,000 ft
- Rarely fly above 41,000 ft
- Training flights between Houston and Beaumont at 7,000 ft

Non-ionizing radiation

- **Sources:**

- Sun light

- Lasers

- Others

- **Exposure limits**

- American Conference of Governmental Industrial Hygienists (ACGIH) threshold limit values (TLVs)

Summary

- Astronauts are exposed to radiations other than space radiation
- Records of non-space radiation exposures are also archived