PLAINTIFF'S
EXHIBIT
DUP-2181

CLINICAL RECORD	CONSULTATION SHEET

REQUEST

FROM (Ward, Clinic, or Office) | DATE OF REQUEST

[illegible] INSTRUCTIONS

[illegible] (Diagnosis and Reasons)

RESPIRATORY PHYSIOLOGY

[illegible] DESCRIPTION:

- [illegible] electromechanical cycle ergometer
- [illegible] Metabolic Measurement Cart
- [illegible] dry gas meter
- [illegible] mass spectrometer
- [illegible]-Packard ear oximeter
- [illegible]-Packard digital pneumotach
- Avionics valve
- Beckman valve
- Modified Otis-McKerron valve
- Neoprene bags
- E.C.G. by R-R
- Mine Safety monoxolyzer

[illegible]:

[illegible] Incremental work rates to maximum tolerance; increments were 100 Kilogram-meters per minute, work rate was incremental each minute.

___ Sub maximum work rate, 6 minutes each

___ 200 ___ 400 ___ 600 ___ 800

___ 300 ___ 500 ___ 700 ___ 900

PATIENT COOPERATION:

Good

SUBJECTIVE OBSERVATION:

___ legs weak ___ chest pain ___ shortness of breath ___ dizzy

___ weak Other ___

COMMENTS: Initially submaximal constant workrate tests of 200 and 400 kilogrammeters per minute were performed. Observations made during the 5th and 6th minutes of these tests, with an established physiologic steady state, revealed excessive ventilation, excessive respiratory frequency and abnormally low respiratory exchange ratio. Cardiac frequency was normal. The low respiratory exchange ratio was consistent with excessive ventilation and partial depletion of body CO_2 stores prior to initiation of exercise.

Just before incrementing the workrate to determine maximum O_2 consumption the patient was again asked to pedal 4 minutes at 200 kg-m/min followed by a 5th minute at 300 kg-m/min and a 6th minute at 400 kg-m/min. Of interest is that ventilation and breathing frequency fell significantly compared to that seen during the initial submaximal testing at 200 kg-m/min. This suggests psychogenic rather than physiologic mediation of the excessive ventilation.

Ventilation and respiratory frequency were increased relative to oxygen consumption and tidal volume was abnormally reduced. The heart rate was normally matched to oxygen consumption. Arterial blood oxygen saturation as estimated by ear oximetry was 96% resting and 96 to 97% throughout exercise. This was a normal response. He achieved an oxygen consumption of 2000 ml per minute (the predicted value is 2,568 with a normal range of 1,768 to 3,368 ml per minute). He expended only 53% of his breathing capacity (35 X 3.[illegible] = 136.5 liters per minute) and 84% of cardiac chronotropic capacity. An arterial blood gas drawn within 2 seconds of cessation of maximal exercise revealed a metabolic acidemia, PaO_2 97, $PaCO_2$ 31, pH 7.41, bicarbonate 21.

(Continued on reverse side)

SIGNATURE AND TITLE	DATE	IDENTIFICATION NO.	ORGANIZATION
MAYERHOFF [illegible] RONALD, M.D.	6/24/81		PULMONARY FUNCTION LABORATORY

PATIENT'S CURRENT FINAL DIAGNOSIS (Typed or written entries give Name and Rank, include grade, date, hospital or medical facility)

REGISTER NO. | WARD NO.

CONSULTATION SHEET
Standard Form 513
513-100

DUP 0933930

DU 036485

The patient indicated that tiredness of his legs kept him from continuing the incremental exercise load. This is consistent with lack of specific training and conditioning for the task of pedaling a cycle against increasing resistance.

Impression: 1) Normal tolerance of heart and lungs to exercise i.e. normal aerobic capacity .
2) While neurogenic stimuli from a diseased lung may cause excessive ventilation the tendency demonstrated here is more consistent with psychogenic hyperventilation.

McKendree E. McNabb

MCKENDREE E. MCNABB, M.D.
Medical Director

[redacted]

DUP 0933931