



U.S. Department of Transportation

National Highway Traffic Safety Administration

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Thank you for choosing crash data from the National Highway Traffic Safety Administration (NHTSA) for your research or other use. The information contained in this motor vehicle crash report is collected, maintained and distributed in accordance with Public Law 89-564. In accordance with this Public Law, NHTSA is required not to release any case information until completion of quality control procedures. These procedures include a review of the case material to extract all names, licenses and registration numbers, non-coded interview material, non-research related researcher comments in the margins, non-factual data, and the production number portion of the vehicle identification number (VIN).

If you requested NHTSA to query its database files in order to identify a specific crash, then that query was made using non-personal descriptors you provided for use in our search. This motor vehicle crash may have been identified from a data search and matches the general, non-personal descriptors you provided, but we cannot confirm that this is the specific crash report you requested.

If you have any questions with regard to the above procedures, please contact the Field Operations Branch, Crash Investigation Division, National Center for Statistics and Analysis at 202-366-4820. Again, please be advised that we cannot confirm that this is the case that you have specifically requested nor can we certify the information to be correct.

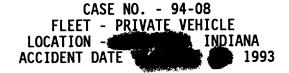
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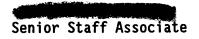
### TRANSPORTATION RESEARCH CENTER

Indiana University Bloomington, Indiana 47403-1599

REMOTE AIR BAG REPORT

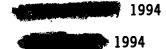


Submitted By:





**Revised Submissions:** 



Contract Number: DTNH22-94-A-07048

### Prepared for:

U.S. Department of Transportation National Highway Traffic Safety Administration National Center for Statistics and Analysis Washington, D.C. 20590

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The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points be coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the precrash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

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### TRC/IU REMOTE AIR BAG REPORT

TRC/IU CASE NO. 94-08

FLEET - PRIVATE VEHICLE LOCATION - INDIANA

### Summary

This report concerns a motor vehicle crash involving an air bag equipped 1993 Plymouth Voyager and a 1992 Lexus ES300 occurring on 1993 at the p.m., in least in Indiana on a city street. This crash is of special interest because the case vehicle's deploying air bag was alleged to have caused respiratory problems to the case vehicle driver.

The Plymouth Voyager was traveling south in the southbound, curb-lane of a five-lane, undivided roadway when it impacted the Lexus ES300 which was traveling west in an unknown, westbound lane on a six-lane, undivided, shopping mall, entrance/exit roadway. The Plymouth rotated clockwise, approximately 45 degrees, after impact and came to rest on the west side of the intersection heading southwest. The Lexus rotated counterclockwise, approximately 45 degrees, after impact and came to rest in the west side of the intersection also heading southwest.

The front left of the Plymouth impacted the right front of the Lexus. CDC is estimated as: 11-FYEW-2 for the Plymouth, and CDC is not estimable for the Lexus. No reconstruction program was used on this crash because the NASS, CDS, CRASH3PC protocol requires that actual vehicular crush measurements be obtained.

The 1993 Plymouth Voyager was equipped with a driver supplemental restraint system (air bag) which deployed as a result of the frontal impact. The driver of the vehicle (31 year-old female) was also restrained by the available, active, three-point lap and shoulder belt. She sustained, according to her interview, minor injuries which included: an abrasion to her face and right forearm. The case vehicle driver had persistent laryngitis (October 1993 through July 1994) and eventually (i.e., July 1994) underwent outpatient surgery for the removal of the nodules on her vocal cords. Although the laryngitis's existence is certain, its origin is unknown because (1) the laryngitis was diagnosed prior to the crash by her family physician, and (2) whatever affect the air bag's deployment had on her larynx and/or vocal cords was not medically determined. The driver of the Plymouth was listed on the Police Accident Report as not sustaining any injury as a result of this crash. The driver (42 year-old female) of the Lexus was also listed on the Police Accident Report as not sustaining any injury as a result of this crash.

### TRC/IU REMOTE AIR BAG REPORT

FLEET - PRIVATE VEHICLE LOCATION - INDIANA CASE NO. - 94-08

### **ACCIDENT DATA**

Location/Street:

City/Township:

Area/Type:

Accident Date/Time:

Investigating Police Agency:

Accident Type:

Occupant Injury Severity

(air bag vehicle):

City Street

Indiana

Urban, commercial

1993 0

Police Department

Mini-Van / Car - right angle

Abrasions (AIS-1)

### **AMBIENT CONDITIONS**

Light conditions:

Daylight

Weather Condition:

Clear

Precipitation:

None

Road Surface:

Dry

### <u>ROADWAY</u>

<u>Case Vehicle</u>	<u>Vehicle #2</u>

Location:

City street

Shopping mall entrance/exit roadway

Number of Travel Lanes:

5-lanes, undivided

6-lanes, undivided on

east leg, divided on

west leg

Surface Type:

Asphalt

Asphalt

Vertical alignment:

Level

Level (i.e., less than

2 percent grade)

Horizontal alignment:

Straight

Straight

Traffic Density:

Heavy

Moderate

### ROADWAY (CONT'D.)

Case Vehicle #2

Speed Limit: 48 k.p.h (30 m.p.h.) 32 k.p.h. (20 m.p.h.)

Traffic Controls:

On-colors, traffic control signal

On-colors, traffic control signal

**VEHICLES** 

Case Vehicle #2

Year: 1993 1992

Make: Plymouth Lexus

Model: Voyager ES300

Body Type: Mini-van, passenger 4-door, sedan

V.I.N.: 204GH2535P----- Unknown

Mileage: Approximately 64,400 Unknown

kilometers (~40,000

miles)

Securiflex windshield: Unknown Unknown

Windshield damage/source: None/photographs Unknown

Fleet: Private vehicle Unknown

Tow status: Towed due to damage Towed due to damage

Reported Defects: None Unknown

VEHICLE DAMAGE

Case Vehicle Vehicle #2

Deployment Impact

Object Struck: Vehicle #2 Case vehicle

Event number: One One

Damage location: Front Right

CDC: 11-FYEW-2 Unknown

Estimated Maximum Crush: 23 cm (9.1 in) Unknown

### VEHICLE DAMAGE (CONT'D.)

Case Vehicle #2

Deployment Impact (Cont'd.)

Damage components: Front bumper, grille, Unknown

right & left fenders

\$7,040 Unknown

Interior damage: Air bag module Unknown

### **COLLISION SEQUENCE**

Repair Estimate:

According to the driver of the case vehicle, she was traveling south in the southbound, curb-lane of a five-lane, undivided roadway, at a driver estimated speed of 48-56 k.p.h. (30-35 m.p.h.), when she bent down to pick up a cassette tape. According to the driver, upon returning her attention to the road ahead, she observed the traffic control had changed to red and immediately saw vehicle #2. According to the Police Accident Report and the insurance photographs (i.e., Selected Print # 01, page 6, shows that the majority of the damage through the frontal plane was above the bumper most likely indicating that the case vehicle's front bumper was "dipping" at impact), she attempted to stop by applying her brakes. According to the Police Accident Report, vehicle #2 was traveling west in an unknown, westbound lane on a six-lane, undivided, shopping mall, entrance/exit roadway.

According to the Police Accident Report, insurance photographs of the case vehicle, and the case vehicle driver, the front left of the case vehicle impacted the right front (tire/fender area) of vehicle #2. According to the Police Accident Report, the case vehicle rotated clockwise, approximately 45 degrees, after impact and came to rest on the west side of the intersection heading southwest. Vehicle #2 rotated counterclockwise, approximately 45 degrees, after impact and came to rest in the west side of the intersection also heading southwest.

According to the driver of the case vehicle, the case vehicle was equipped with a driver supplemental restraint system (air bag) which deployed as a result of the frontal impact. The case vehicle driver and the Police Accident Report indicate that she was restrained by the available, active, three-point lap and shoulder belt. No mention was made in the Police Accident Report concerning the deployment/nondeployment/presence of an air bag in either the case vehicle or vehicle #2. According to the case vehicle driver she sustained, according to her interview, minor injuries which included: an abrasion to her face and right forearm. The case vehicle driver had persistent laryngitis (October 1993 through July 1994) and eventually (i.e., July 1994) underwent outpatient surgery for the removal of the nodules on her vocal cords. though the laryngitis's existence is certain, its origin is unknown because (1) the laryngitis was diagnosed prior to the crash by her family physician, and (2) whatever effect the air bag's deployment had on her larynx and/or vocal cords was not medically determined. The driver of the Plymouth was listed on the Police Accident Report as not sustaining any injury as a result of this crash. The driver (42 year-old female) of the Lexus was also listed on the Police Accident Report as not sustaining any injury as a result of this crash.

# DRIVER DATA

	Case Vehicle	Vehicle #2
Age:	31 year-old	42 year-old
Sex:	Female	Female
Height:	163 cm (64 in)	Unknown
Weight:	54 kg (118 lbs)	Unknown
Occupation:	Saleswoman	Unknown
Active Restraint System/Usage:	3-point lap and shoulder belt/used	Unknown
Usage Source:	Interview and Police Accident Report	Unknown
Eye glasses/contacts:	Glasses for night time driving only	Unknown
Vehicle Familiarity:	Daily	Unknown
Route Familiarity:	Daily	Unknown
Trip Plan:	Drop off a payment	Unknown
Manner of Leaving Scene:	Friend drove her home	Unknown
Type of Medical Treatment:	Treatment later at family physician	Unknown if treated

## DRIVER INJURIES

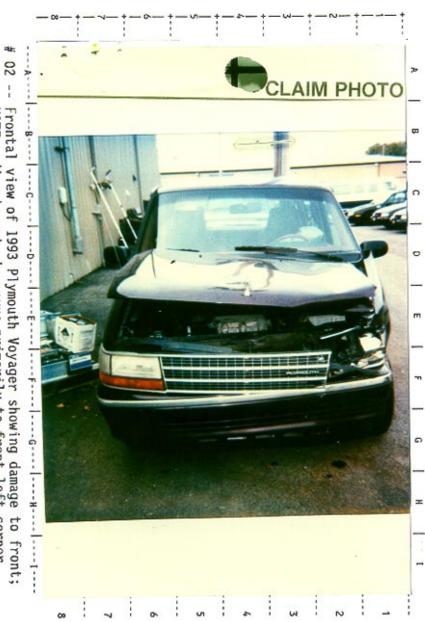
Description of Injury	<u>A.I.S.</u>	Source Injury <u>of Data</u> <u>Mechanism</u>	<u>Certainty</u>
` ' '	290202.1,9	7 Air bag	(Probable)
jury) face Abrasion right forearm	790202.1,1	7 Air bag	{Probable}

## SELECTED PRINTS

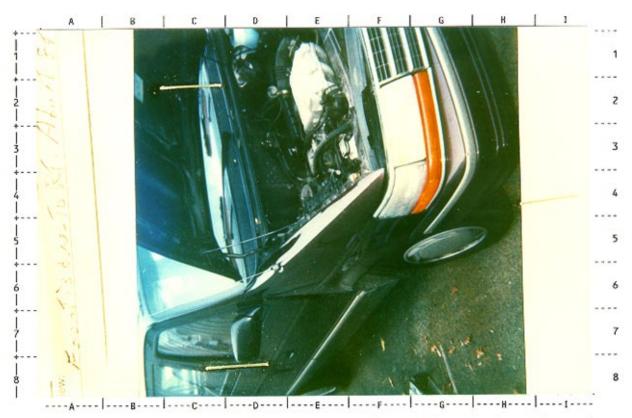


01 ---1993 Plymouth Voyager viewed from front left front left corner; NOTE: majority of damage is above bumper showing impact at

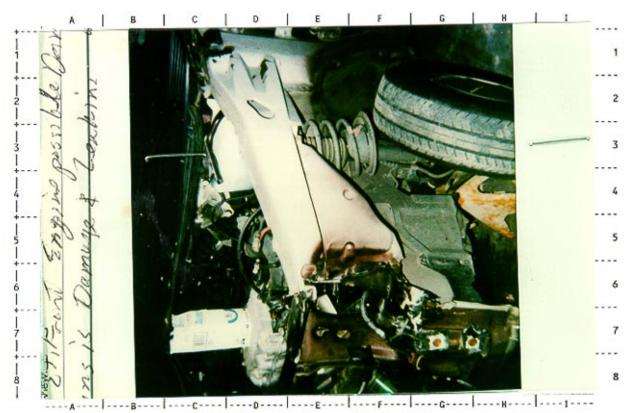
141:



Frontal view of 1993 Plymouth Voyager showing damage NOTE: direct contact occurs primarily to front left corner



# 03 -- 1993 Plymouth Voyager viewed from front right showing undamaged right front corner; NOTE: induced damage to right front fender



# 04 -- Close-up of 1993 Plymouth Voyager's left frame, front wheel, and suspension; NOTE: engine in background

# Appendix A:

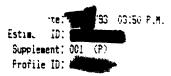
Police Accident Report

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NAR	RATIVE (Refer to	Vehicle by Number)		
DRIVER #1 stated that she was southby Driver #1 stated that she looked down roadway Driver #2 was crossing the in her brakes to stop but could not stop	n to pick	something up and w	nen she looked er #1. Driver	
Driver #2 stated that she was westbo Driver #2 stated that the traffic li east/west traffic. As Driver #2 was Driver #1.	ght at	Road and		Road. re was green fo
D1 Insured By		D2 Insured By		
Other Participant(s) Name, Address (etc.)			·	
Name of Witness No. 1	Address		Location at Time	
Name of Witness No. 2	Audress		Location at Time	
Name of Person Arrested	I.C. Code(s)	Name of Person Arrested		I.C. Code(s)
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# Appendix B:

Vehicle Repair Estimate



### FOR ANY QUESTIONS RESARDING THIS ESTIMATE PLEASE CONTACT

THE ESTIMATOR BELOW AT

Claim Rep: 1

Supplemented By:

Type of Loss: Collision Date of Loss: Deductible: 100.00

Insured:

Mitchell Service: 914525

Description: 1993 PLYMOUTH VOYAGER MINIUAN

VIN: 2P46H2535PR

Estimator:

Mileage: 43,000

Search Code: R207

Color: MARRON

OEM/ALT: A

Line	Entry	Labor		Line Item	Part Type/	Dollar	Labor
Item	Number	Туре	Operation	Description	Part Number	Amount	Unit
1	AUTO	BODY	OVERHAUL	FRT COVER ASSY			1.5
2	401160	BODY	REMOVE/REPLACE	FRT BUMPER COVER	4451756	295.00	INCL
3	AUTO	REFIN	REFINISH	FRT COVER		(	2.6
4	401190	BODY	REMOVE/REPLACE	FRT BUMPER IMPACT STRIF	4451747	40.00	INCL
5	401250	BODY	REMOVE/REPLACE	FRT BUMPER CLIP	6501067	0.20	INCL
6	401280	60DY	REMOVE/REPLACE	FRT BUMPER REINFORCEMENT	4576991	106.00	INCL
7	401360	BODY	REMOVE/REPLACE	L FRT BUMPER RETAINER	4676219	3.50	INCL
8	401630	BODY	REMOVE/REPLACE	GRILLE	AB33KDC	250.00	0.5
3	402060	BODY	CHECK/ADJUST	HEADLAMPS			0.4
10	402290	80DY	REMOVE/REPLACE	L H/LAMP BEZEL	4399919	82.00	INCL
11	402370	BODY	REMOVE/REPLACE	L UPR H/LAMP MOULDING	4451743	22.50	INCL
12	402390	BODY	REMOVE/REPLACE	L LUR H/LAMP MOULDING	4451745	22.00	INCL
13	402410	BODY	REMOVE/REPLACE	L H/LAMP HOUSING	4451731	74.00	INCL
14	402440	BODY	REMOVE/REPLACE	L H/LAMP PINGT	4638431	6.25	
i5	402470	BODY	REMOVE/REPLACE	L HALAMP NUT	4388227	1.70	
16	402490	BODY	REMOVE/REPLACE	L H/LAMP BULS	4388238	27.00	0.2
17	402540	BODY	REMOVE/REPLACE	R H/LAMP MOUNTING PANEL	4515296	70.00	0.7
18	402550	BODY	REMOVE/REPLACE	L H/LAMP MOUNTING PANEL	4515297	70.90	0.7
19	402520	BODY	REMOVE/REPLACE	L H/LAMP ADJUSTING BAR	4451995	10.75	INCL
20	402640	BODY	REMOVE/REPLACE	L H/LAMP ADJUSTING BAR	4451997	10.75	INCL
21	403298	B00Y	REMOVE/REPLACE	HOOD PANEL	4719046	220.00	1.2
22	403380	BODY	REMOVE/REPLACE	HOOD CLIP	6003351	0.60	
23	403390	BODY	REMOVE/REPLACE	R HOOD HINGE	4674344	9.35	6.3
24	AUTO	REFIN	REFINISH	R HINGE			0.2
25	403400	BODY	REMOVE/REPLACE	L HOOD HINGE	+674345	3.35	0.3

The: 1979 753 03:50 P.M. Estia. ID: Supplement: 001 (P) Frofile ID: 1

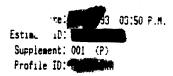
25								
29	26	AUTO REFI	N REFINISH	L HINGE				
29		403460 BUDY	REMUVE/REPLACE	HOOD PRIMARY LATCH				
32   404330   NECH   REMOVE/REPLACE   ENGINE TRANSMISSION DIL COOLER   HIS   4644837   75.00   0.73     34   405240   NECH   REMOVE/REPLACE   ENGINE TRANS COOLER   HOSES   HIS   10.55   0.5     37   405240   NECH   REMOVE/REPLACE   ENGINE TRANS COOLER   HOSES   HIS   10.55   0.5     38   AUTO   REFIN REFINISH   REFINER   REFINER REPRESENCE   LEFENCE ROUTSIDE   C 2.4     39   408240   RODY   REMOVE/REPLACE   LEFENCE ROUTSIDE   C 2.4     30   408240   RODY   REMOVE/REPLACE   LEFENCE ROUTSIDE   C 2.4     40   AUTO   REFIN REFINISH   LEFENCE ROUTSIDE   C 2.5     40   409540   RODY   REMOVE/REPLACE   LEFENCE ROUTSIDE   C 2.4     40   AUTO   REFIN REFINISH   LEFENCE ROUTSIDE   C 2.5     40   409540   RODY   REMOVE/REPLACE   LEFENCE ROUTSIDE   C 2.5     40   409540   RODY   REMOVE/REPLACE   LEFENCE ROUTSIDE   C 2.5     40   409540   RODY   REMOVE/REPLACE   LEFENCE ROUTSIDE   C 2.5     40   400540   RODY   REMOVE/REPLACE   LEFENCE ROUTSIDE   C 2.5     40   400540   RODY   REMOVE/REPLACE   FROM BODY REMOVE/REPLACE   REMOVE ROUTSIDE   C 2.5     40   400540   RODY   REMOVE/REPLACE   FROM BODY REMOVE/REPLACE   REMOVE								
32   404330   NECH   REMOVE/REPLACE   ENGINE TRANSMISSION DIL COOLER   HIS   4644837   75.00   0.73     34   405240   NECH   REMOVE/REPLACE   ENGINE TRANS COOLER   HOSES   HIS   10.55   0.5     37   405240   NECH   REMOVE/REPLACE   ENGINE TRANS COOLER   HOSES   HIS   10.55   0.5     38   AUTO   REFIN REFINISH   REFINER   REFINER REPRESENCE   LEFENCE ROUTSIDE   C 2.4     39   408240   RODY   REMOVE/REPLACE   LEFENCE ROUTSIDE   C 2.4     30   408240   RODY   REMOVE/REPLACE   LEFENCE ROUTSIDE   C 2.4     40   AUTO   REFIN REFINISH   LEFENCE ROUTSIDE   C 2.5     40   409540   RODY   REMOVE/REPLACE   LEFENCE ROUTSIDE   C 2.4     40   AUTO   REFIN REFINISH   LEFENCE ROUTSIDE   C 2.5     40   409540   RODY   REMOVE/REPLACE   LEFENCE ROUTSIDE   C 2.5     40   409540   RODY   REMOVE/REPLACE   LEFENCE ROUTSIDE   C 2.5     40   409540   RODY   REMOVE/REPLACE   LEFENCE ROUTSIDE   C 2.5     40   400540   RODY   REMOVE/REPLACE   LEFENCE ROUTSIDE   C 2.5     40   400540   RODY   REMOVE/REPLACE   FROM BODY REMOVE/REPLACE   REMOVE ROUTSIDE   C 2.5     40   400540   RODY   REMOVE/REPLACE   FROM BODY REMOVE/REPLACE   REMOVE		403850 800Y	REMUVE/REPLACE	COULING RADIATOR				INCL
32   404330   NECH   REMOVE/REPLACE   ENGINE TRANSMISSION DIL COOLER   HIS   4644837   75.00   0.73     34   405240   NECH   REMOVE/REPLACE   ENGINE TRANS COOLER   HOSES   HIS   10.55   0.5     37   405240   NECH   REMOVE/REPLACE   ENGINE TRANS COOLER   HOSES   HIS   10.55   0.5     38   AUTO   REFIN REFINISH   REFINER   REFINER REPRESENCE   LEFENCE ROUTSIDE   C 2.4     39   408240   RODY   REMOVE/REPLACE   LEFENCE ROUTSIDE   C 2.4     30   408240   RODY   REMOVE/REPLACE   LEFENCE ROUTSIDE   C 2.4     40   AUTO   REFIN REFINISH   LEFENCE ROUTSIDE   C 2.5     40   409540   RODY   REMOVE/REPLACE   LEFENCE ROUTSIDE   C 2.4     40   AUTO   REFIN REFINISH   LEFENCE ROUTSIDE   C 2.5     40   409540   RODY   REMOVE/REPLACE   LEFENCE ROUTSIDE   C 2.5     40   409540   RODY   REMOVE/REPLACE   LEFENCE ROUTSIDE   C 2.5     40   409540   RODY   REMOVE/REPLACE   LEFENCE ROUTSIDE   C 2.5     40   400540   RODY   REMOVE/REPLACE   LEFENCE ROUTSIDE   C 2.5     40   400540   RODY   REMOVE/REPLACE   FROM BODY REMOVE/REPLACE   REMOVE ROUTSIDE   C 2.5     40   400540   RODY   REMOVE/REPLACE   FROM BODY REMOVE/REPLACE   REMOVE		403970 6007	REMUVE/REPLACE	COOLING MOUNTING PANEL				0.2
10.00   10.0				1002110 2221127				
1-   1-   1-   1-   1-   1-   1-   1-								0.7
1.0   1.0						<del>4</del> 682555	10.25	0.5
10   10   10   10   10   10   10   10								
17					-11	4644365	305.00	
38   AUTO   REFIN REFINISH   REFINISH   REFINE CUISIDE								
150   100   150	-	· - · - · ·						
NUTO							C	
NUTO						4636481	150.00	
40   40   50   60   7   7   7   7   7   7   7   7   7							C	2.2
1.0								0.5
1.0					<b>-</b> \$	4674121	290.00	3.8
10   10   10   10   10   10   10   10								1.5
46   410070 BODY   RENOVE/REPLACE   L FRONT BODY APRON ASSY   S   4674307   45.00   6.0					-3			1.0*
AUTO				· · · · · · · · · · · · · · · · · · ·				1.0
NOTE					-S	4674307	45.00	6.0
NUTO   REFIN REFINSH   L APRON REINF   .				==				1.0
10470   80DY   REPAIR   REPONT BODY BRACE   2.0					-\$	4674309	18.50	INCL
10-8-    10-9-    1	_							0.5
\$\frac{1}{100}   \$\fr								2.0*
STATE   STAT							•	1.0#
SA   SA   SA   SA   SA   SA   SA   SA	52				,	4490184	5.75	0.3
SA   SA   SA   SA   SA   SA   SA   SA	53	410940 BODY	REMOVE/REPLACE	FRONT BODY BATTERY TRAY SUPPORT		4674181	13.50	0.6
1.0	_	931084 BCDY	REMOVE/REPLACE	*BATTERY		**QUAL REPL PART	58.37*	
ST   ST   ST   ST   ST   ST   ST   ST	_			L AIR BAG SENSOR	- <b>H</b>	4637513	76.50	0.5
BETTERMENT - P   TIRE \$\frac{1}{2}\$.00   TIRE \$\frac				FRONT SUSPENSION	- <b>H</b>			1.0
59         900500 MECH *REMOUE/REPLACE *TRANS HOUSING         ************************************		331083 WECH				**QUAL REPL PART	75.37*	0.3*
416160 MECH   REMOVE/REPLACE   STEERING AIR BAG MODULE	58		BETTERMENT - P	TIRE 175.00			56.53	
\$16260 MECH REMOVE/REPLACE STEERING CLOCKSPRING W/AIR BAG						/LK	545.00*	5.0*
62       418340 BODY       REMOVE/REPLACE       R ENG SUPT MOUNT       4505496       34.00       0.5         63       418350 BODY       REMOVE/REPLACE       R ENG SUPT MOUNT       4471036       35.00       0.5         64       418410 BODY       REMOVE/REPLACE       L ENG SUPT MOUNT       4668132       22.50       0.7         65       418450 BODY       REMOVE/REPLACE       L ENG SUPT MOUNT BRACKET       MD156820       68.50         66       418510 BODY       REMOVE/REPLACE       L ENG SUPT MOUNT BRACKET       5272153       26.00         67       426820 BODY       REPAIR       *L FRT DOOR REPAIR PANEL       1.0*         68       REFIN REFINISH/RESAIR L FRT DOOR REPAIR PANEL       1.5*         69       300500 MECH *REMOVE/REPLACE *TRANS SEALS&GAKETS       NEM       37.00*         70       931072 FRAME REPAIR       *FRAME       10.0*         71       AUTO       REFIN ADD'L LABOR OPR CLEAR COAT       2.0         72       933005 BODY       ADD'L LABOR OPR RESTORE CORROSION PROTECTION       1.0*         73       936001       ADD'L COST       FREDN & OIL       25.00*         74       936001       ADD'L COST       TOWING       137.50*         75       936003 <td< td=""><td>60</td><td></td><td></td><td></td><td></td><td>DZ39JV8</td><td>465.75</td><td>0.2</td></td<>	60					DZ39JV8	465.75	0.2
## 418350 BODY REMOVE/REPLACE R ENG SUPT NOUNT 4471036 35.00 0.5 ## 18410 BODY REMOVE/REPLACE L ENG SUPT NOUNT 4668132 22.50 0.7 ## 18450 BODY REMOVE/REPLACE L ENG SUPT NOUNT BRACKET MD156820 68.50 ## 18450 BODY REMOVE/REPLACE L ENG SUPT NOUNT BRACKET 5272159 26.00 ## 18510 BODY REMOVE/REPLACE L ENG SUPT MOUNT BRACKET 5272159 26.00 ## 18510 BODY REPAIR *L FRT DOOR REPAIR PANEL 1.0* ## 1.	61	416260 MECH	REMOVE/REPLACE	STEERING CLOCKSPRING W/AIR BAG	- <b>H</b>	4637954	101.00	0.3
A	62					4505496	34.00	0.5
### ### ##############################	63	418350 BODY	REMOVE/REPLACE	R ENG SUPT MOUNT		4471036	35.00	0.5
65   \$18450 BODY   REMOVE/REPLACE   R ENG SUPT NOUNT BRACKET   MD156820   68.50     66   \$418510 BODY   REMOVE/REPLACE   L ENG SUPT MOUNT BRACKET   5272159   26.00     67   \$426820 BODY   REPAIR   *L FRT DOOR REPAIR PANEL   1.0*     68   REFIN REFINISH/REMAIR   FRT DOOR REPAIR PANEL   1.5*     69   \$300500 MECH *REMOVE/REPLACE *TRANS SEALS&GAKETS   NEM   37.00*     70   \$931072 FRAME   REPAIR   *FRAME   10.0*     71   AUTO   REFIN ADD'L LABOR OPR CLEAR COAT   2.0     72   \$933005 BODY   ADD'L LABOR OPR RESTORE CORROSION PROTECTION   1.0*     73   \$936001   ADD'L COST   FREON & DIL   25.00*     74   \$936001   ADD'L COST   TOMING   137.50*     75   \$936003   ADD'L COST   COCLANT   20.00*     76   AUTO   ADD'L COST   PAINT MATERIALS   202.80*     77   \$936003   ADD'L COST   PAINT MATERIALS   202.80*     78   \$936004   ADD'L COST   PAINT MATERIALS   202.80*     79   \$936005   ADD'L COST   PAINT MATERIALS   202.80*     70   \$936005   ADD'L COST   PAINT MATERIALS   202.80*     71   \$936005   ADD'L COST   PAINT MATERIALS   202.80*     71   \$936005   ADD'L COST   PAINT MATERIALS   202.80*     72   \$936005   ADD'L COST   PAINT MATERIALS   202.80*     73   \$936005   ADD'L COST   PAINT MATERIALS   202.80*     74   \$936005   ADD'L COST   PAINT MATERIALS   202.80*     75   \$93605   ADD'L COST   PAINT MATERIALS   202.80*     76   \$93605   ADD'L COST   PAINT MATERIALS   202.80*     77   \$93605   ADD'L COST   PAINT MATERIALS   202.80*     78   \$93605   ADD'L COST   PAINT MATERIALS   202.80*     79   \$93605   ADD'L COST   PAINT MATERIALS   202.80*     70   \$93605   ADD'L	64	418410 BODY	REMOVE/REPLACE	L ENG SUPT HOUNT		4668132	22.50	0.7
67       426820 BODY REPAIR       *L FRT DOOR REPAIR PANEL       1.0*         68       REFIN REFINISH/REMAIR L FRT DOOR REPAIR PANEL       1.5*         69       300500 MECH *REMOVE/REPLACE *TRANS SEALS&GAKETS       NEM       37.00*         70       931072 FRAME REPAIR       *FRAME       10.0*         71       AUTO REFIN ADD'L LABOR OPR CLEAR COAT       2.0         72       933005 BODY ADD'L LABOR OPR RESTORE CORROSION PROTECTION       1.0*         73       936000 ADD'L COST FREON & DIL       25.00*         74       936001 ADD'L COST TOWING       137.50*         75       936003 ADD'L COST COCLANT       20.00*         75       AUTO ADD'L COST PAINT MATERIALS       202.86*	65	418450 BODY	REMOVE/REPLACE	R ENG SUPT MOUNT BRACKET		MD156820		
67         426820 BODY REPAIR         *L FRI DOOR REPAIR PANEL         1.0*           68         REFIN REFINISH/REMAIR L FRI DOOR REPAIR PANEL         1.5*           69         900500 MECH *REMOVE/REPLACE *TRANS SEALS&GAKETS         NEM         37.00*           70         931072 FRAME REPAIR         *FRAME         10.0*           71         AUTO REFIN ADD'L LABOR OPR CLEAR COAT         2.0           72         933005 BODY ADD'L LABOR OPR RESTORE CORROSION PROTECTION         1.0*           73         936000 ADD'L COST FREON & OIL         25.00*           74         936001 ADD'L COST TOWING         137.50*           75         936002 ADD'L COST COCLANT         20.06*           75         AUTO ADD'L COST PAINT MATERIALS         202.86*	66	418510 BODY	REMOVE/REPLACE	L ENG SUPT MOUNT BRACKET		5272153	26.00	
69         900500 MECH *REMOVE/REPLACE *TRANS SEALS&GAKETS         NEW         37.00*           70         931072 FRAME REPAIR *FRAME         10.0*           71         AUTO REFIN ADD'L LABOR OPR CLEAR COAT         2.0           72         933005 BODY ADD'L LABOR OPR RESTORE CORROSION PROTECTION         1.0*           73         936000 ADD'L COST FREON & OIL         25.00*           74         936001 ADD'L COST TOWING         137.50*           75         936003 ADD'L COST COCLANT         20.06*           76         AUTO ADD'L COST PAINT MATERIALS         202.86*	67	426820 BODY	REPĄIR	*L FRT DOOR REPAIR PANEL				1.0*
TO   931072 FRAME REPAIR   +FRAME   10.0*	66	REFIN	REFINISH/REPAIR	EL FRT DOOR REPAIR PANEL				1.5*
70         931072 FRAME REPAIR         *FRAME         10.0*           71         AUTD REFIN ADD'L LABOR OPR CLEAR COAT         2.0           72         933005 BODY ADD'L LABOR OPR RESTORE CORROSION PROTECTION         1.0*           73         936000 ADD'L COST FREON & DIL         25.00*           74         936001 ADD'L COST TOWING         137.50*           75         936002 ADD'L COST COCLANT         20.00*           76         AUTO ADD'L COST PAINT MATERIALS         202.80*	69	300500 MECH	*REMOVE/REPLACE	*TRANS SEALS&GAKETS		NEW	37.00*	
TI   AUTO   REFIN   ADD'L LABOR OPR CLEAR COAT	70	931072 FRAME	REPAIR	*FRAME				10.0*
72         933005 BODY         ADD'L LABOR OPR RESTORE CORROSION PROTECTION         1.0*           73         936000         ADD'L COST         FREON % DIL         25.00*           74         936001         ADD'L COST         TOWING         137.50*           75         936003         ADD'L COST         COCLANT         20.00*           75         AUTO         ADD'L COST         PAINT MATERIALS         202.80*	71	AUTO REFIN	ADD'L LABOR OPR	CLEAR COAT				
73 936000 ADD'L COST FREON & DIL 25.00*  74 936001 ADD'L COST TOWING 137.50*  75 936003 ADD'L COST CODLANT 20.00*  76 AUTO ADD'L COST PAINT MATERIALS 202.86*	72							
74       936001       ADD'L COST       TOWING       137.50*         75       936003       ADD'L COST       CODLANT       20.00*         76       AUTO       ADD'L COST       PAINT MATERIALS       X       202.86*	73	936000	ADD'L COST	FREON & OIL			25.00*	•
75 936003 ADD'L COST COCLANT 20.00+ 75 AUTO ADD'L COST PAINT MATERIALS 202.80+	74	936001						
75 AUTO ADD'L COST PAINT MATERIALS	75	336003				2		
	76							
		• jud	gement Item					

ESTIMATE RECALL NUMBER: 33 15:40:30 Mirchell Data Persion: 33\_N

C Included in Clear Coat Calc

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### Remarks

### POSSIBLE HIDDEN DAMAGE ENGINE INNER TRANS PARTS

I. Labor Subtotals	<u>Units</u>	Rate	<u>Totals</u>	II.	Part Replacement	Summary	Amount
Body	29.6	<b>30.</b> 00	388.00		Taxable Parts		4,296.04
Refinish	15.6	30.00	468.00		Sale	es Tax & 5.00%	214.80
Frame	10.0	35.00	350.00		Non-Taxable Parts	5	37.00
Mechanical	11.1	35.00	388.50		Total Rep	acement Parts Amount:	4,547.84
i	abor Sub	total	2,094.50				,
Labor Summary Totals	66.3		2,094.50				
III. Additional Costs		_	Amount	I.	. Total Labor:		2,094.50
Taxable Costs			247.80	II.	Total Replacemen	nt Parts:	4,547.84
Sales Tax	€ 5.00	;	12.39		Total Additional		397.69
Nontaxable Cos	its		137.50				•••••
Total Addi	tional (	iosts:	397.69			Gross Total:	7,040.03
Customer Allowance: (	00.0	Cust	o <b>ae</b> r Responsil	ility:	158.53-	Net Total:	6,883.50
					Less Fre	vious Net Total:	6,533,50
					Net Su	pplement Amount:	350.00
Point of Impact: 12 FRONT CENTER Body Shop:		I	nspection Site				

\*\*\* CAUTION \*\*\*

FAILING TO PRESENT THIS ESTIMATE TO THE REPAIRING GARAGE BEFORE REPAIR
MAY RESULT IN ADDITIONAL EXPENSE TO YOU. ANY SUPPLEMENT TO THIS
ESTIMATE MUST BE AUTHORIZED BY A DIVISION ADJUSTER.

NOTICE: REPAIRS TO THIS VEHICLE MAY REQUIRE SPECIFIC WELDING EQUIPMENT AS RECOMMENDED BY THE MANUFACTURER.

ESTIMATE RECALL NUMBER: Mitchell Data Version: :30

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## FRAME/UNIBODY DAMAGE ANALYSIS SHEET

CLAIM NUMBER	AMAL AMALOIS SILES!
YEAR 93 MAKE Solar Ve ya ger ESTIMATOR	
ESTIMATOR _	
DAMAGE DESCRIPTION/REMARKS: Wails do 00 1- To	RI. & Agress our Pails Bulled on
LT. ERTS, els	
USE ARROW ———> TO SHOW DIRECTION OF N	MOVÉMENT. (USE "M" FOR MASH) (USE "B" FOR BUCKLE)
00	$\pi$
	9000
DIMENSIONAL CORRECTIONS	HOURS OTHER THAN DIMENSIONAL CORRECTIONS
poll Likes our-sup	OPERATION HOURS
ps//kg-	Cosmetics
Res- Seed	Align Openings
pull KI A good our-To age-	/) (Enter item/hours on estimate as necessary)
get Budeles from Br. 1 & Flo	20
	. \
DIMENSIONAL CORRECTION TOTAL	80 × 35 -:
SET-UP	RATE
SE1-UP	X RATE
	Total (Dimensional Corrections) \$

# ESTIMATE REPORT Sup limenta 0

NAME				DA	TE 19		RK PHONE	но	ME PHONE	
ADDR	ESS				_city					ZIP
YEAR		w	MAKE Plym MODEL VILLAGES			_ I.D. NC	2P4C-H	4535PA		
PAINT	CODE		PROD. DATETRIM	м	ILEAGE		LICENSE NO		DATEOFIC	xss
WRIT	TEN BY	, !	INS. CO		FILE NO		CLAIM N		P.O. NO.	
	STER		LIC. NO.		PHC				BLE/BETTERMI	ENT
								LABOR	PAINT	SUBLET/MISC.
NO.	RE- PAIR	PLACE	R - Repair S - Straighten A - After R/C - Recycle/Rechrome/Recore U - Ue	market ed R - F	N- New Rebuilt	PI	PARTS	LABOR	PAIRI	SUBLE I/MISC.
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i nei	еру а	utnon		,	TOTALO		PARTS (Prices	subject to invoice]	<u> </u>	19.50
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							Towing / Storag	•	`	
							Sublet / Miscella		:	
							EPA / Waste Di	sposal Charge	; !	
							SUB TOTAL	<del> </del>		
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							TAX		TOTAL	5348
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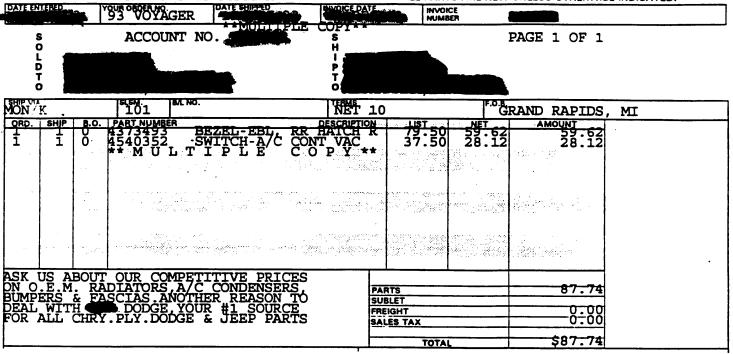


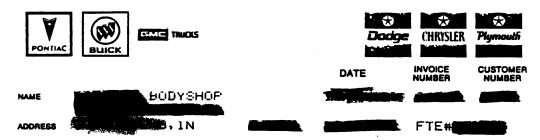
25% HANDLING ON ALL RETURNED PARTS.
NO RETURNS AFTER 30 DAYS OR ON ANY ELECTRICAL PARTS.
SPECIAL ORDERS UNRETURNABLE.

SPECIAL ORDERS UNRETURNABLE.

YOUR #1 WEST MICHIGAN DODGE DEALER

ALL PARTS ARE NEW UNLESS OTHERWISE INDICATED.





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"We Still Cever Your Seat . . . But We Also Have . . .



SEAT COVER AND AUTO GLASS CO., INC.

# CUSTOM SEAT COVERS AND CONVERTIBLE TOPS AUTO GLASS BODY REPAIR AND PAINTING



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# Appendix C:

NASS CDS Accident Form

# U.S. Department of Transportation

National Highway Traffic Safety

### ACCIDENT FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

Administration					GO STITION I NINESS	DAIA SISIER
1 Primary Same	oling Unit Number	/ ()	\$	SPECIAL STUDIES	S - INDICATO	RS
2. Case Number		9408 N	that h	<ul> <li>each special sas been completed;</li> <li>studies and 0 foed.</li> </ul>	code 1 for the	e checked
3. Number of Ge Forms Submi		02	6	SS15 Administration	ve Use	0
4. Date of Accid		93	7	SS16 Pedestrian C	rash Data Study	0
5. Time of Accid	Control of Principles Services	1535	8	SS17 Impact Fires		0
	orted military time		9	SS18		
	lidnight = 2400 nknown = 9999		10	SS19		
				NUMBER O	F EVENTS	
			in T	nber of Recorded Evinis Accident  le the number of evenis accident.		O
	100	ACCIDE	NT EVEN	TC		
involved vehicle	or object on the rig	e accident, code the	lowest nur	nbered vehicle in the	left columns and	
Accident Event Sequence	Vehicle	Class Of	General Area of	Vehicle Number or	Class Of	General Area of
Number	Number	Vehicle	Damage	Object Contacted	Vehicle	Damage
12. <u>0 1</u>	13. 🔘 📗	14. <u>O</u> +	15. <u>F</u>	16. <u>O 2</u>	17. <u>0 2</u>	18. <u>R</u>
19. 0 2	20	21	22	23	24	25
26. <u>0</u> <u>3</u>	27	28	29	30	31	32
33. 0 4	34	35	36	37	38	39
40 O E	A1	42	40	44.	45	46

IF GREATER THAN FIVE EVENTS, CONTINUE CODING ON THE ACCIDENT EVENT SUPPLEMENT

# CODES FOR CLASS OF VEHICLE

- (00) Not a motor vehicle
- (01) Subcompact/mini (wheelbase < 254 cm)
- (02) Compact (wheelbase ≥ 254 but < 265 cm)
- (03) Intermediate (wheelbase ≥ 265 but < 278 cm)
- (04) Full size (wheelbase ≥ 278 but < 291 cm)
- (05) Largest (wheelbase ≥ 291 cm)
- (09) Unknown passenger car size
- (11) Compact utility vehicle
- (12) Large utility vehicle (≤ 4,500 kgs GVWR)
- (13) Passenger van (≤ 4,500 kgs GVWR)
- (14) Other van (≤ 4,500 kgs GVWR)
- (15) Pickup truck (≤ 4,500 kgs GVWR)
- (18) Other truck (≤ 4,500 kgs GVWR)
- (19) Unknown light truck type
- (20) School bus
- (21) Other bus
- (22) Truck (> 4,500 kgs GVWR)
- (23) Tractor without trailer
- (24) Tractor-trailer(s)
- (25) Motored cycle
- (28) Other vehicle
- (99) Unknown

# CODES FOR GENERAL AREA OF DAMAGE (GAD)

# CDS APPLICABLE AND

### **OTHER VEHICLES**

- (0) Not a motor vehicle
- (N) Noncollision
- (F) Front
- (R) Right side
- (L) Left side
- (B) Back
- (T) Top
- (U) Undercarriage
- (9) Unknown

# TDC APPLICABLE VEHICLES

- (0) Not a motor vehicle
- (N) Noncollision
- (F) Front
- (R) Right side
- (L) Left side
- (B) Back of unit with cargo area (rear of trailer or straight truck)
- (D) Back (rear of tractor)
- (C) Rear of cab
- (V) Front of cargo area
- (T) Top
- (U) Undercarriage
- (9) Unknown

### CODES FOR VEHICLE NUMBER OR OBJECT CONTACTED

(01-30) - Vehicle Number

#### **Noncollision**

- (31) Overturn rollover
- (32) Fire or explosion
- (33) Jackknife
- (34) Other intraunit damage (specify):
- (35) Noncollision injury
- (38) Other noncollision (specify):
- (39) Noncollision details unknown

### Collision With Fixed Object

- (41) Tree (≤ 10 cm in diameter)
- (42) Tree (> 10 cm in diameter)
- (43) Shrubbery or bush
- (44) Embankment
  - (45) Breakaway pole or post (any diameter)

### Nonbreakaway Pole or Post

- (50) Pole or post (≤ 10 cm in diameter)
- (51) Pole or post (> 10 cm but ≤ 30 cm in diameter)
- (52) Pole or post (> 30 cm in diameter)
- (53) Pole or post (diameter unknown)
- (54) Concrete traffic barrier
- (55) Impact attenuator
- (56) Other traffic barrier (includes guardrail) (specify):

- (57) Fence
- (58) Wall
- (59) Building
- (60) Ditch or culvert
- (61) Ground
- (62) Fire hydrant
- (63) Curb
- (64) Bridge
- (68) Other fixed object (specify):
- (69) Unknown fixed object

### **Collision with Nonfixed Object**

- (71) Motor vehicle not in-transport
- (72) Pedestrian
- (73) Cyclist or cycle
- (74) Other nonmotorist or conveyance
- (75) Vehicle occupant
- (76) Animal
- (77) Train
- (78) Trailer, disconnected in transport
- (79) Object fell from vehicle in-transport
- (88) Other nonfixed object (specify):
- (89) Unknown nonfixed object
- (98) Other event (specify):
- (99) Unknown event or object

## Appendix D:

NASS CDS General Vehicle Form:

Case Vehicle

V.S. Department of Transportation  National Highway Traffic Safety  Administration	GENERAL VE	HICLE FORM	NATIONAL ACCIDENT SAMPLING S CRASHWORTHINESS DATA S	
Primary Sampling Unit Number     Case Number - Stratum     Wehicle Number  VEHICLE IDENTIFIC	4 0 8 0 1 ATION	11. Police Reported Alco (0) No alcohol pres (1) Yes (alcohol pre (7) Not reported (8) No driver preser (9) Unknown	phol Presence <u>C</u> ent esent)	<u>&gt;</u>
4. Vehicle Model Year Code the last two digits of the (99) Unknown  5. Vehicle Make (specify):  Applicable codes are found in y NASS Data Collection, Coding a Editing Manual. (99) Unknown	<u>h</u> 09	12. Alcohol Test Result Code actual value (d before first digit—0. (95) Test refused (96) None given	For Driver ecimal implied xx) ned, results unknown	, e
6. Vehicle Model (specify):  VOLGE  Applicable codes are found in young a Rediting Manual. (999) Unknown	our	13. Speed Limit (000) No statutory I Code posted or statu in kph (999) Unknown		3
7. Body Type  Note: Applicable codes may be the back of this page.	found on $\frac{20}{}$	30 mph x 1.6093 =  14. Attempted Avoidance (01) No avoidance a	e Maneuver	<u>+</u>
Left justify; Slash zeros and lette No VIN—Code all zeros Unknown—Code all nines	DS	(02) Braking (no lock (03) Braking (lockup) (04) Braking (lockup) (05) Releasing brake (06) Steering left (07) Steering right (08) Braking and stee (09) Braking and stee (10) Accelerating (11) Accelerating and (12) Accelerating and (13) No driver preserting (13) Other (14) Reserved	unknown) s ering left ering right d steering left d steering right nt	
<ol> <li>Police Reported Vehicle Disposit</li> <li>Not towed due to vehicle damag</li> <li>Towed due to vehicle damag</li> <li>Unknown</li> </ol>	mage le	(98) Other action (sp		•
10. Police Reported Travel Speed  Code to the nearest kph (NOTE: less than 0.5 kph) (160) 159.5 kph and above (999) Unknown mph X 1.6093 =kp	9 9 9 000 means	15. Accident Type Applicable codes ma back of page two of (CO) No impact Code the number of best describes the ac (98) Other accident to	y be found on the this field form that cident circumstance	2

\*\*\*\* SKIP TO VARIABLE GV37 IF GV07 DOES NOT EQUAL 01-49 \*\*\*\*

	OCCUPANT RELATED	24.	Rollover .
	Driver Presence in Vehicle (0) Driver not present (1) Driver present (9) Unknown  Number of Occupants This Vehicle (00-96) Code actual number of occupants		(0) No rollover (no overturning)  Rollover (primarily about the longitudinal axis) (1) Rollover, 1 quarter turn only (2) Rollover, 2 quarter turns (3) Rollover, 3 quarter turns (4) Rollover, 4 or more quarter turns (specify):
	for this vehicle (97) 97 or more (99) Unknown		(5) Rolloverend-over-end (i.e., primarily about the lateral axis) (9) Rollover (overturn), details unknown
18.	Number of Occupant Forms Submitted		OVERRIDE/UNDERRIDE (THIS VEHICLE)
	VEHICLE WEIGHT ITEMS		Q
19.	Vehicle Curb Weight		Front Override/Underride (this Vehicle)
	10 kilograms. (045) Less than 450 kilograms (610) 6,100 kilograms or more	26.	Rear Override/Underride (this Vehicle)
	(999) Unknown		(0) No override/underride, or not an end-to-end impact
	3.070 lbs x.4536 = 1.392 kgs  Source: 93 GAS truck Index		Override (see specific CDC) (1) 1st CDC (2) 2nd CDC (3) Other not automated CDC (specify):
20.	Vehicle Cargo Weight, & 0  Code weight to nearest  10 kilograms.		
	(000) Less than 5 kilograms (450) 4,500 kilograms or more (999) Unknown		Underride (see specific CDC) (4) 1st CDC (5) 2nd CDC
	, <u>1 75</u> lbs X .4536 =, <u>7 9</u> kgs		(6) Other not automated CDC (specify):
21.	RECONSTRUCTION DATA  Towed Trailing Unit		(7) Medium/heavy truck or bus override (9) Unknown
	(0) No towed unit (1) Yes—towed trailing unit (9) Unknown		HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V
22.	Documentation of Trajectory Data for This Vehicle (0) No (1) Yes		Values: (000)-(359) Code actual value (997) Noncollision (998) Impact with object – (999) Unknown
23.	Post Collision Condition of Tree or Pole (For Highest Delta V) (0) Not collision (for highest delta V) with tree or pole		Heading Angle For This Vehicle $\frac{9}{9}$
	tree or pole  (1) Not damaged (2) Cracked/sheared (3) Tilted <45 degrees (4) Tilted ≥45 degrees (5) Uprooted tree (6) Separated pole from base (7) Pole replaced (8) Other (specify):		
	(9) Unknown		

	Highest
29. Basis for Total Delta V (highest)	32. Lateral Component of Delta V 9 9 9
<ul> <li>Delta V Calculated</li> <li>(1) CRASH program—damage only routine</li> <li>(2) CRASH program—damage and trajectory routine</li> <li>(3) Missing vehicle algorithm</li> <li>Delta V Not Calculated</li> <li>(4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.</li> <li>(5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction technique, regardless of adequacy of damage data.</li> <li>(6) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.</li> </ul>	Nearest kph (highest)  Nearest kph (secondary)  (NOTE:000 means greater than -0.5 kph and less than +0.5 kph) (±160) ±159.5 kph and above (_999) Unknown  33. Energy Absorption
COMPUTER GENERATED DELTA V  Highest  30. Total Delta V  Nearest kph (highest)  Nearest kph (secondary)	34. Confidence In Reconstruction Program Results (For Highest Delta V) (0) No reconstruction (1) Collision fits model — results appear reasonable (2) Collision fits model — results appear high (3) Collision fits model — results appear low (4) Borderline reconstruction — results appear reasonable
(NOTE: 000 means less than 0.5 kph) (160) 159.5 kph and above (999) Unknown	35. Type of Vehicle Inspection (0) No inspection (1) Complete inspection (2) Partial inspection (specify):
31. Longitudinal Component of +	36. Is this an AOPS Vehicle?  (0) No  (1) Yes - researcher determined  (2) VIN determined air bag system  (3) VIN determined automatic (passive) belts  (4) VIN determined air bag and automatic (passive) belts
	HIS VEHICLE? [] YES [V NO

		· · · · · · · · · · · · · · · · · · ·
37.	Police Reported Other Drug Presence (0) No other drug(s) present (1) Yes [other drug(s) present] (7) Not reported (8) No driver present	DRUG EVALUATION CLASSIFICATION OTHER DRUGS TEST RESULTS FOR DRIVER  DEC Specimen Test Test
38.	Police Reported Drug Evaluation Classification (DEC) Test For Driver (0) No DEC process available or given (1) DEC process given, results known (2) DEC process given, results unknown (3) DEC process available, unknown if given (8) No driver present	Narcotic Drug  Au  Au  Au  Au  Au  Au  Au  Au  Au
39.	Other Drug Specimen Test Type For Driver (0) No specimen test given (1) Blood test (2) Urine test (3) Other specimen tests (specify):  (7) Unspecified specimen test (8) No driver present (9) Unknown if specimen test given	Codes For DEC Test Results  (0) No DEC test given (1) Passed DEC test (2) Failed DEC test (3) DEC test given—results unknown (8) No driver present (9) Unknown if DEC test given  Codes for Specimen Test Results  (0) No specimen test given (1) Drug not found in specimen (2) Drug found in specimen (7) Specimen test given, results unknown or not obtained (8) No driver present (9) Unknown if specimen test given
1		

	rage:
OTHER DATA	61. Rollover Initiation Object Contacted
66. Driver's Zip Code  (00000) Driver not present (00001) Driver not a resident of U.S. or territories  Code actual 5-digit zip code (99999) Unknown  57. Driver's Race/Ethnic Origin (0) Driver not present (1) White (non-Hispanic) (2) Black (non-Hispanic) (3) White (Hispanic) (4) Black (Hispanic) (5) American Indian, Eskimo or Aleut	62. Location on Vehicle Where Initial Principal Tripping Force Is Applied  (0) No rollover (1) Wheels/tires (2) Side plane (3) End plane (4) Undercarriage (5) Other location on vehicle (specify):  (8) Non-contact rollover forces (specify): (9) Unknown
(6) Asian or Pacific Islander (8) Other (specify):	63. Direction of Initial Roll
(9) Unknown  58. Vehicle Special Use (This Trip) (0) No special use (1) Taxi (2) Vehicle used as school bus (3) Vehicle used as other bus (4) Military (5) Police (6) Ambulance	<ul> <li>(0) No rollover</li> <li>(1) Roll right - primarily about the longitudinal axis</li> <li>(2) Roll left - primarily about the longitudinal axis</li> <li>(5) End-over-end (i.e., primarily about the lateral axis)</li> <li>(9) Unknown roll direction</li> </ul>
(7) Fire truck or car	PRECRASH DATA
(8) Other (specify):(9) Unknown	64. Pre-Event Movement (Prior to
ROLLOVER DATA  If GV07 (Body Type) ≠ 1-49, leave GV59-GV63 blank.  If GV24 (Rollover) = 0, then GV59-GV63 must equal 0.  If GV24 = 9, then GV59-GV63 must equal 9.	Recognition of Critical Event)  (01) Going straight (02) Slowing or stopping in traffic lane (03) Starting in traffic lane (04) Stopped in traffic lane (05) Passing or overtaking another vehicle
59. Rollover Initiation Type (0) No rollover (1) Trip-over (2) Flip-over (3) Turn-over (4) Climb-over (5) Fall-over (6) Bounce-over (7) Collision with another vehicle (8) Other rollover initiation type specify):  (9) Unknown rollover initiation type	(06) Disabled or parked in travel lane (07) Leaving a parking position (08) Entering a parking position (09) Turning right (10) Turning left (11) Making a U-turn (12) Backing up (other than for parking position) (13) Negotiating a curve (14) Changing lanes (15) Merging (16) Successful avoidance maneuver to a previous critical event (97) Other (specify):
60. Location of Rollover Initiation	(98) No driver present
<ul> <li>(0) No rollover</li> <li>(1) On roadway</li> <li>(2) On shoulder—paved</li> <li>(3) On shoulder—unpaved</li> <li>(4) On roadside or divided trafficway median</li> <li>(9) Unknown</li> </ul>	(66) SHAISWII

PRECRASH DATA (Continued)								
	Pedestrian or Pedalcyclist, or Other Nonmotoris	et						
65. Critical Precrash Event	(80) Pedestrian in roadway	,,						
	lili a li							
This Vehicle Loss of Control Due To	(82) Pedestrian—unknown location							
(01) Blow out or flat tire	(83) Pedalcyclist or other nonmotorist in roads	vay						
(02) Stalled engine								
(03) Disabling vehicle failure (e.g.,	(84) Pedalcyclist or other nonmotorist approac	hing						
(specify): (04) Non-disabling vehicle problem	roadway (specify):							
up) (specify):	(85) Pedalcyclist or other nonmotorist—unkno	wn						
(05) Poor road conditions (puddle,	pot hole, ice, etc.)   location (specify):							
(Specify):	, , , , , , , , , , , , , , , , , , , ,							
(06) Traveling too fast for condition	ons Object or Animal							
(08) Other cause of control loss (s	specify):   (87) Animai in roadway							
(OO) Other cases of contract the	(88) Animai approaching roadway							
(09) Unknown cause of control los	ss (89) Animal—unknown location							
,,	(90) Object in roadway							
This Vehicle Traveling	(91) Object approaching roadway							
(10) Over the lane line on left side	of travel lane (92) Object—unknown location							
(11) Over the lane line on right sid	de of travel lane							
(12) Off the edge of the road on the	the left side (98) Other critical precrash event (specify):							
(13) Off the edge of the road on the	the right side							
(14) End departure	(99) Unknown							
(15) Turning left at intersection								
(16) Turning right at intersection	E G A A	CV1A						
(17) Crossing over (passing through	gh) intersection For Corrective Actions Attempted see variable	GVIT						
(19) Unknown travel direction	(Attemped Avoidance Manuever)							
Other Motor Vehicle In Lane								
(50) Stopped	66. Precrash Stability After Avoidance Maneuver	1						
(51) Traveling in same direction w	with lower speed (0) No avoidance maneuver							
(i.e., lower steady speed or d	d===l===\in=\							
(52) Traveling in same direction w	(1) Tracking (1) Tracking (2) Skidding longitudinally—rotation less than	30						
(53) Traveling in opposite direction	n (2) Oktobily fortgledanially	50						
(54) In crossover	l defices							
(55) Backing	(3) Skidding laterally—clockwise rotation (4) Skidding laterally—counterclockwise rotation	ion						
(59) Unknown travel direction of	other motor vehicle (4) Skidding laterally—counterclockwise rotal (7) Other vehicle loss-of-control (specify):	,						
in lane	(/) Other vehicle loss-or-control (specify).							
Other Motor Vehicle Encroaching I	Into Lane (8) No driver present							
(60) From adjacent lane (same dir								
lane line	(5)							
(61) From adjacent lane (same dir	rection)—over right							
lane line	67. Precrash Directional Consequences of	- 1						
(62) From apposite direction—ove	er left lane line Avoidance Maneuver (Corrective Action)							
(63) From opposite direction—ove	er right lane line (0) No avoidance maneuver							
(64) From parking lane	(1) Vehicle staved in travel lane where avoid	ance						
(65) From crossing street, turning	g into same maneuver was initiated							
direction	(2) Vehicle stayed on roadway but left travel	lane						
(66) From crossing street, across	patti							
(67) From crossing street, turning	into opposite (3) Vehicle stayed on roadway, not known if							
direction								
(68) From crossing street, intende	ed patir not known							
(70) From driveway, turning into	agine direction							
(71) From driveway, across path		v						
(72) From driveway, turning into		7						
(73) From driveway, intended pat	to not known (8) No griver present (9) Directional consequences unknown							
(74) From entrance to limited acc (78) Encroachment by other vehic	cle_details (3) Directional consequences unknown							
unknown	CIG — GOLDING							
	CARLE VEHICLE MAD NOT INCREATED ILE. 01/25 01 444							
*** IF THE CDS APPLIC	CABLE VEHICLE WAS NOT INSPECTED (I.E., GV35=0), ***							
DO NOT COMPL	ETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.							

\*\*\* IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE \*\*\*
THE EXTERIOR VEHICLE, INTERIOR VEHICLE,
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.

# Appendix E:

NASS CDS General Vehicle Form:
Vehicle #2

## U.S. Department of Transportation

National Highway Traffic Safety Administration

# GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

	, Chashworthiness Data Syste
1. Primary Sampling Unit Number	11. Police Reported Alcohol Presence (0) No alcohol present
2. Case Number - Stratum 9408	(1) Yes (alcohol present) (7) Not reported
3. Vehicle Number O 2	(8) No driver present (9) Unknown
VEHICLE IDENTIFICATION	
4. Vehicle Model Year Code the last two digits of the model year	Note: See variables 37 through 55 (Page 4) for information on Other Drugs
(99) Unknown	12. Alcohol Test Result For Driver Code actual value (decimal implied before first digit –0.xx)
5. Vehicle Make (specify): 59 Applicable codes are found in your	(95) Test refused (96) None given (97) AC test performed, results unknown
NASS Data Collection, Coding and Editing Manual.	(98) No driver present (99) Unknown
(99) Unknown	Source: PAR
6. Vehicle Model (specify): 03/	ACCIDENT RELATED
Applicable codes are found in your	13. Speed Limit
NASS Data Collection, Coding and	(000) No statutory limit Code posted or statutory speed limit
Editing Manual. (999) Unknown	in kph (999) Unknown
7. Body Type O 4	<u>20</u> mph x 1.6093 = <u>32</u> kph
Note: Applicable codes may be found on the back of this page.	14. Attempted Avoidance Maneuver 9 9
and soon or time page.	(01) No avoidance actions (02) Braking (no lockup)
8. Vehicle Identification Number	(03) Braking (lockup)
000000000000000000000000000000000000000	(04) Braking (lockup unknown) (05) Releasing brakes
9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	(06) Steering left
Left justify; Slash zeros and letter Z (0 and 로)	(07) Steering right (08) Braking and steering left (09) Braking and steering right
No VIN—Code all zeros Unknown—Code all nines	(10) Accelerating
OFFICIAL RECORDS	(11) Accelerating and steering left (12) Accelerating and steering right
	(97) No driver present (98) Other action (specify):
9. Police Reported Vehicle Disposition (0) Not towed due to vehicle damage	
<ul><li>(1) Towed due to vehicle damage</li><li>(9) Unknown</li></ul>	(99) Unknown
	15. Accident Type Applicable codes may be found on the
10. Police Reported Travel Speed 9 9	back of page two of this field form (CO) No impact
Code to the nearest kph (NOTE: 000 means	Code the number of the diagram that
less than 0.5 kph) (160) 159.5 kph and above (999) Unknown	best describes the accident circumstance (98) Other accident type (specify):
mph X 1.6093 = kph	(99) Unknown
**** SKIP TO VARIABLE GV37 IF G	V07 DOES NOT EQUAL 01-49 ****

	OCCUPANT RELATED	24	Rollover · O
17.	Driver Presence in Vehicle (0) Driver not present (1) Driver present (9) Unknown  Number of Occupants This Vehicle (00-96) Code actual number of occupants for this vehicle (97) 97 or more (99) Unknown	24.	(0) No rollover (no overturning)  Rollover (primarily about the longitudinal axis) (1) Rollover, 1 quarter turn only (2) Rollover, 2 quarter turns (3) Rollover, 3 quarter turns (4) Rollover, 4 or more quarter turns (specify):  (5) Rolloverend-over-end (i.e., primarily about the lateral axis) (9) Rollover (overturn), details unknown
18.	Number of Occupant Forms Submitted O		
	VEHICLE WEIGHT ITEMS		OVERRIDE/UNDERRIDE (THIS VEHICLE)
	Vehicle Curb Weight		Front Override/Underride (this Vehicle)  Rear Override/Underride (this Vehicle)
	(045) Less than 450 kilograms (610) 6,100 kilograms or more (999) Unknown 3,3 6 2 lbs X .4536 = 1.525 kgs		(0) No override/underride, or not an end-to-end impact
	Source: Auto NEWS		Override (see specific CDC) (1) 1st CDC (2) 2nd CDC (3) Other not automated CDC (specify):
	Vehicle Cargo Weight  Code weight to nearest  10 kilograms.  (000) Less than 5 kilograms  (450) 4,500 kilograms or more		Underride (see specific CDC) (4) 1st CDC
	(999) Unknown lbs X .4536 =, kgs		(5) 2nd CDC (6) Other not automated CDC (specify):
	RECONSTRUCTION DATA  Towed Trailing Unit (0) No towed unit		(7) Medium/heavy truck or bus override (9) Unknown
	(1) Yes—towed trailing unit (9) Unknown		HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V
	Documentation of Trajectory Data for This Vehicle (0) No (1) Yes		Values: (000)-(359) Code actual value (997) Noncollision (998) Impact with object (999) Unknown
	Post Collision Condition of Tree or Pole (For Highest Delta V) (0) Not collision (for highest delta V) with tree or pole		Heading Angle For This Vehicle $\frac{9999}{999}$ Heading Angle For Other Vehicle
	<ul> <li>(1) Not damaged</li> <li>(2) Cracked/sheared</li> <li>(3) Tilted &lt; 45 degrees</li> <li>(4) Tilted ≥ 45 degrees</li> <li>(5) Uprooted tree</li> </ul>		
	(6) Separated pole from base (7) Pole replaced (8) Other (specify):		
L	(9) Unknown	<u> </u>	

	<u> </u>
29. Basis for Total Delta V (highest)  Delta V Calculated (1) CRASH program—damage only routine (2) CRASH program—damage and trajectory routine (3) Missing vehicle algorithm  Delta V Not Calculated (4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions. (5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction technique, regardless of adequacy of damage data. (6) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.  COMPUTER GENERATED DELTA V  Highest  Q Q Q Q  Nearest kph (highest)  Nearest kph (secondary)  (NOTE: 000 means less than 0.5 kph) (160) 159.5 kph and above (999) Unknown	Highest   Highest
31. Longitudinal Component of + 9 9 9 Nearest kph (highest) Nearest kph (secondary)  (NOTE:000 means greater than -0.5 kph and less than +0.5 kph) (±160) ±159.5 kph and above (999) Unknown	
	THIS VEHICLE? [] YES [ NO AM SUMMARY INCLUDED? [] YES [] NO

37. Police Reported Other Drug Presence (0) No other drug(s) present (1) Yes (other drug(s) present) (7) Not reported (8) No driver present (9) Unknown	DRUG EVALUATION CLASSIFICATION OTHER DRUGS TEST RESULTS FOR DRIVER  DEC Specimen Test Test Results Results Results Narcotic Drug 40. 0 41. 0 Depressant Drug 42. 0 43. 0 Stimulant Drug 44. 0 45. 0 Hallucinogen Drug 46. 0 47. 0
(DEC) Test For Driver (0) No DEC process available or given (1) DEC process given, results known (2) DEC process given, results unknown (3) DEC process available, unknown if given (8) No driver present	Cannabinoid Drug Phencyclidine (PCP) Inhalant Drug Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)  Codes For DEC Test Results
39. Other Drug Specimen Test Type For Driver (0) No specimen test given (1) Blood test (2) Urine test (3) Other specimen tests (specify):  (7) Unspecified specimen test (8) No driver present (9) Unknown if specimen test given	<ul> <li>(0) No DEC test given</li> <li>(1) Passed DEC test</li> <li>(2) Failed DEC test</li> <li>(3) DEC test given—results unknown</li> <li>(8) No driver present</li> <li>(9) Unknown if DEC test given</li> <li>Codes for Specimen Test Results</li> <li>(0) No specimen test given</li> <li>(1) Drug not found in specimen</li> <li>(2) Drug found in specimen</li> <li>(7) Specimen test given, results unknown or not obtained</li> <li>(8) No driver present</li> <li>(9) Unknown if specimen test given</li> </ul>
-	

~ <u>-</u>	
OTHER DATA	61. Rollover Initiation Object Contacted
(0000) Driver not present (00001) Driver not a resident of U.S. or territories Code actual 5-digit zip code (99999) Unknown	62. Location on Vehicle Where Initial Principal Tripping Force Is Applied  (0) No rollover (1) Wheels/tires (2) Side plane
57. Driver's Race/Ethnic Origin (0) Driver not present (1) White (non-Hispanic) (2) Black (non-Hispanic) (3) White (Hispanic) (4) Black (Hispanic) (5) American Indian, Eskimo or Aleut (6) Asian or Pacific Islander (8) Other (specify):	(3) End plane (4) Undercarriage (5) Other location on vehicle (specify):  (8) Non-contact rollover forces (specify):  (9) Unknown
(9) Unknown  58. Vehicle Special Use (This Trip) (0) No special use (1) Taxi (2) Vehicle used as school bus (3) Vehicle used as other bus (4) Military (5) Police (6) Ambulance	<ul> <li>(0) No rollover</li> <li>(1) Roll right - primarily about the longitudinal axis</li> <li>(2) Roll left - primarily about the longitudinal axis</li> <li>(5) End-over-end (i.e., primarily about the lateral axis)</li> <li>(9) Unknown roll direction</li> </ul>
(7) Fire truck or car	PRECRASH DATA
(8) Other (specify):(9) Unknown	64. Pre-Event Movement (Prior to Recognition of Critical Event)
ROLLOVER DATA	Necognition of Chilical Eventy
If GV07 (Body Type) ≠ 1-49, leave GV59-GV63 blank. If GV24 (Rollover) = 0, then GV59-GV63 must equal 0. If GV24 = 9, then GV59-GV63 must equal 9.	<ul> <li>(01) Going straight</li> <li>(02) Slowing or stopping in traffic lane</li> <li>(03) Starting in traffic lane</li> <li>(04) Stopped in traffic lane</li> <li>(05) Passing or overtaking another vehicle</li> </ul>
59. Rollover Initiation Type  (O) No rollover  (1) Trip-over (2) Flip-over (3) Turn-over (4) Climb-over (5) Fall-over (6) Bounce-over (7) Collision with another vehicle (8) Other rollover initiation type specify):	(06) Disabled or parked in travel lane (07) Leaving a parking position (08) Entering a parking position (09) Turning right (10) Turning left (11) Making a U-turn (12) Backing up (other than for parking position) (13) Negotiating a curve (14) Changing lanes (15) Merging (16) Successful avoidance maneuver to a previous critical event (97) Other (specify):
60. Location of Rollover Initiation  (0) No rollover (1) On roadway (2) On shoulder—paved (3) On shoulder—unpaved (4) On roadside or divided trafficway median (9) Unknown	(98) No driver present (99) Unknown

		PRECRASH DA	IA (Continued)
65.		tal Precrash Event 66	Pedestrian or Pedalcyclist, or Other Nonmotorist (80) Pedestrian in roadway
	This	Vehicle Loss of Control Due To:	(81) Pedestrian approaching roadway
		Blow out or flat tire	(82) Pedestrian—unknown location
	(02)	Stalled engine	(83) Pedalcyclist or other nonmotorist in roadway
		Disabling vehicle failure (e.g., wheel fell off)	(specify):
		(specify):	(84) Pedalcyclist or other nonmotorist approaching
	(04)	Non-disabling vehicle problem (e.g., hood flew	roadway (specify):
	,,	up) (specify):	(85) Pedalcyclist or other nonmotorist—unknown
		Poor road conditions (puddle, pot hole, ice, etc.) (specify):	location (specify):
	(06)	Traveling too fast for conditions	Object or Animal
	(08)	Other cause of control loss (specify):	(87) Animal in roadway
		,	(88) Animal approaching roadway
	(09)	Unknown cause of control loss	(89) Animal—unknown location
	,,		(90) Object in roadway
	This	Vehicle Traveling	(91) Object approaching roadway
		Over the lane line on left side of travel lane	(92) Object—unknown location
	(11)	Over the lane line on right side of travel lane	,
	(12)	Off the edge of the road on the left side	(98) Other critical precrash event (specify):
	/13)	Off the edge of the road on the right side	, too, contained processes of the proces
		End departure	(99) Unknown
		Turning left at intersection	(00, 0
		Turning right at intersection	
		Crossing over (passing through) intersection	For Corrective Actions Attempted see variable GV14
		Unknown travel direction	(Attemped Avoidance Manuever)
	(13)	Olikilowii flavei direction	Actemped Avoidance Mandovon
	Othe	er Motor Vehicle In Lane	
		Stopped	66. Precrash Stability After Avoidance Maneuver
		Traveling in same direction with lower speed	
	10.,	(i.e., lower steady speed or decelerating)	(0) No avoidance maneuver
	(52)	Traveling in same direction with higher speed	(1) Tracking
	(53)	Traveling in opposite direction	(2) Skidding longitudinally—rotation less than 30
		In crossover	degrees
		Backing	(3) Skidding laterally—clockwise rotation
	(59)	Unknown travel direction of other motor vehicle	(4) Skidding laterally—counterclockwise rotation
	1001	in lane	(7) Other vehicle loss-of-control (specify):
			•
	Othe	er Motor Vehicle Encroaching Into Lane	(8) No driver present
	(60)	From adjacent lane (same direction)—over left	(9) Precrash stability unknown
	,	lane line	·
	(61)	From adjacent lane (same direction)—over right	
		lane line	67. Precrash Directional Consequences of
	(62)	From opposite direction—over left lane line	Avoidance Maneuver (Corrective Action)
		From opposite direction—over right lane line	· ·
		From parking lane	(0) No avoidance maneuver
		From crossing street, turning into same	(1) Vehicle stayed in travel lane where avoidance
	,,	direction	maneuver was initiated
	(66)	From crossing street, across path	(2) Vehicle stayed on roadway but left travel lane
		From crossing street, turning into opposite	where avoidance maneuver was initiated
_	,0,,	direction	(3) "Vehicle stayed on roadway, not known if left
	(68)	From crossing street, intended path not known	travel lane where avoidance maneuver was
		From driveway, turning into same direction	initiated
		From driveway, across path	(4) Vehicle departed roadway
		From driveway, turning into opposite direction	(5) Avoidance maneuver initiated off roadway
		From driveway, intended path not known	(8) No driver present
		From entrance to limited access highway	(9) Directional consequences unknown
		Encroachment by other vehicle—details	10) Directional consequences unionatin
	,, 0,	unknown	
		+++ IE THE COS APPI ICARI E VEHICI E M	/AS NOT INSPECTED (I.E., GV35=0), ***
		II IIIE GEG CII EIGCEE TEINGEE T	

DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.

\*\*\* IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE \*\*\* THE EXTERIOR VEHICLE, INTERIOR VEHICLE, OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.

# Appendix F:

NASS CDS Interview Form:

Case Vehicle Driver



U.S. Department of Transportation

National Highway Traffic Safety Administration

1. Primary Sampling Unit Number

# **INTERVIEW FORM (A)**

Interviewee(s) Role or Name(s):\_

NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINESS DATA SYSTEM

DRIVER

2. Case Number - Stratum 4	108				
3. Vehicle Number	01				·
Review all available information a acquisition of all pertinent data.	ind interview q	uestions pric	or to conducting intervi	ew(s) to ensure 1	the
If the driver was not the person i	nterviewed, wa	as an appoin	tment made for a follo	w-up interview?	
DRIVE	R'S DESCRI	PTION OF	ACCIDENT EVENT	S	
DAte of Ac	ocident		, 1993	A	
e5					
5 h Going South a	bout 30	2-35	Approaching		Secretary Control of the Control of
the intersection	n and	my.	front hit		- Charles and a
the other VEI	nicles	(B) SIC	X (LEXUS)	(West bourd	/)
I renched down	to pick	up tap	e came up	CARS T	here
My face neve	212 hit	the A	rizbou alt	hough 1	MY
ARMS D.D. The	Powde	er can	me out,	nto my	face
there was a	hole in	the	bag off	center 't	to RIGHT
4 oclock. Inha	led th	le smo	Ke i could	n't brea	th, cough
My B) ARM	had a	2 5/14/	ht burn A	brasion	FROM
flap face had	1/Ke	a wir	d burn	real h	ght
for 2 days					,
Smoke & B	rowr >	ow der	in VAN.		
throat still irrad	ated	had s	DASMS IN	esophoo	us-
E61 Reflex				7	
	ANT'S DESC	RIPTION C	OF ACCIDENT EVE	NTS	
Body Shop-				<u> </u>	
talk to,	hes au	ware	of prob	lem)	
			0 1 0	<u> </u>	
SAW Physician:			CAIRED		esma
DR			he didn'	t Reall	the bag
			naving A	hole IN	d. Just
			the usua		
•	·		Remember	ednothin	y out
·			of the	ordinai	ey

# ACCIDENT DIAGRAM



The use of this diagram is optional. It may serve to aid in relating interviewee accident trajectory data (i.e., pre-impact to FRP orientations) to identifiable objects in the environment.

**NORTH** 



# U.S. Department of Transportation

National Highway Traffic Safety

# INTERVIEW FORM (B)

NATIONAL ACCIDENT SAMPLING SYSTEM

Administration	· CRASHWORTHINESS DATA SYSTEM
1. Primary Sampling Unit Number 10 8	Interviewee(s) Role or Name(s): DRIVER
3. Vehicle Number	
ACCIDEN	IT DATA QUESTIONS
1. Can you tell me in which direction you were trav	veling? 6a. What actions did you take?
[] North [   South [ ] East [ ] West	[ ] Braking with lock-up
(Optional - Where were you coming from or goin	[ ] Braking without lock-up   ng to?
In which lane were you traveling?  (Note: Lane 1 is designated as the right curb land)	[ ] Steering right [ ] Other (specify):
(1) [2] [3] [4] [ ] Other (specify):	7. Where was your vehicle at the time of the collision?
3. Can you remember your <u>estimated travel speed</u> (in per hour) before the accident?  [ ] Stopped [ ] 1-10 [ ] 10-20 [ ] 20-30 [ √] 30-40 [ ] 40-50 [ ] 50-60 [ ] 60-70 [ ] 70+	[ ] Off roadway to left [ ] Other (specify):  8. Was your travel speed at the time of the collision different from your previous travel speed?
4. Just before the accident, can you tell me what yo intending to do or were doing?  [V] Going straight  [] Stopped	[ ] Higher [ ] Unknown
[ ] slowing	8a. Can you estimate your speed at the time of the collision?  to right  [ ] Stopped [ ] 1-10 [ ] 10-20 [ ] 20-30 [ ] 30-40 [ ] 40-50 [ ] 50-60 [ ] 60-70 [ ] 70+
5. Did you experience any loss of control due to we conditions or mechanical problems?  [ V] No [ ] Yes (If yes, describe below)	9. Immediately following the collision, can you describe  how your vehicle moved to its stopped position?  ENDED up facing  Sout west in west bound  I Are entrance
6. Did you have to take any <u>avoidance actions prior accident?</u> [No - Go to question 7  [ ] Yes - Go to question 6a	10. Can you tell me how many collisions your vehicle had during the accident and the source of the collisions?    M Pact   March   Mar

tional Accident Sampling System-Crashworthiness Date	System: Interview Form (B) Page
1. Primary Sampling Unit Number / O	3. Vehicle Number
2. Case Number - Stratum 9408	4. Occupant Number
VEHICLE/DRIVER I	DATA QUESTIONS
1. Can you tell me the year, make, model of your vehicle?  1 9 9 3, Plymouth Voyager  Veer Model	7b. Were any of the belts removed or not functional prior to the accident? [ ] No [ ] Yes ( If "Yes", specify which belt and describe problem)
2. Can you describe the damage to your vehicle?  whole Foon + ENDD  FRAME BENT	
3. Was there any previous damage to your vehicle that is not related to this accident?  No  (If "yes", describe below)	8. Do any of the front belts move along a motorized track when the door is opened or closed?  [ ] No (If "No", go to question 9)  [ ] Yes (If "Yes", what seat location?)  [ ] Left Front  [ ] Right Front
4. Did any of the doors (hatch, tailgate) open during the accident?  [/] No	8a. Were the motorized belts working properly before the accident?  [ ] No (If "No", describe condition below)
DRIVER DOOR JAMMEd at	[ ] Yes  8b. Were the belts connected to the track prior to the
5. Did any of the windows break during the accident? [ ] No [ ] Yes (If "Yes", describe below)	accident? [ ] No [ ] Yes [ ] Unknown
6. Does your vehicle have a glove compartment? [   No [ ] Yes	9. Do any of the front "seat" belts attach to the door such that when the door is opened the belt travels with the door?  [ ] No (go to question 10)  [ ] Yes
6a. Did the glove compartment door come open during the accident?  [ ] No [ ] Yes	9a. Does this belt come across the? [ ] Chest only [ ] Lap and chest
[ ] Unknown  7. Does your vehicle have "seat belts"? [ ] No (If "No", go to question 7b)	9b. Was this belt connected prior to the accident? [ ] No [ ] Yes
7a. Can you describe the type of seat belt for each seat?	[ † Unknown
Driver's seat [ ] Lap [ Lap and shoulder Front seat middle [ ] Lap [ Lap and shoulder Front seat right [ ] Lap [ ] Lap and shoulder Rear seat left [ ] Lap [ ] Lap and shoulder Rear seat middle [ ] Lap [ ] Lap and shoulder Rear seat right [ ] Lap [ ] Lap and shoulder (Identify seat belts for third row and beyond	AIR BAGS  10. Is your vehicle equipped with a driver's side air beg? [ ] No (go to question 11) { ] Yes (go to question 10a) [ ] Unknown (go to question 11)  10a. Did the air beg inflate during the accident? [ ] No (go to questions 10b and 10c) [ ] Yes (go to question 10e)

lational Accident Sampling System-Crashworthiness Data System: Interview Form (B) Page		
1. Primary Sampling Unit Number	3. Vehicle Number	
2. Case Number - Stratum 9408	4. Occupant Number	
VEHICLE/DRIVER DATA Q	UESTIONS (CONTINUED)	
10b. Was the air bag wiring disconnected prior to the accident?	CHILD SAFETY SEAT	
[ ] No [ ] Yes (If "Yes", describe previous condition)	12. Was there a person in a child safety seat in your vehicle? [] No (If "No", go to question 13)	
[ ] Unknown	[ ] Yes [ ] Unknown	
10c. Was your vehicle involved in any accidents prior to this accident which inflated the air bag? [ ] No (go to question 11) [ ] Yes (go to question 10d)	12a. Can you tell me the manufacturer and model of the child safety seat?	
[ ] Unknown		
10d. Was the air bag re-installed after the accident? [ ] No (go to question 11) [ ] Yes [ ] Unknown	12b. Can you describe the type of child safety seat?  [ ] Infant         [ ] Toddler         [ ] Convertible         [ ] Booster         [ ] Other (specify):	
10e. Did the air bag inflate as you expected? [ ] No (If "No" describe below)	[ ] Unknown	
[ ] Yes	12c. Where was the child safety seat(s) located? [12] [13] [21] [22] [23] [31] [32] [33]	
11. Is your vehicle equipped with a passenger side air bag?  [ No (If "No", go to question 12)  [ ] Yes (If "Yes", go to question 11a)	[Other] (specify):	
[ ] Unknown (If "Unknown", go to question 12)	12d. Can you tell me which direction the child safety seat was facing prior to the accident?	
11a. Did the passenger air bag inflate during the accident? [ ] No (go to question 11b) [ ] Yes (go to question 12)	[ ] Rear facing [ ] Forward facing, [ ] Other (specify):	
11b. Was the passenger air bag wiring disconnected prior to the accident? [ ] No [ ] Yes (If "Yes", describe below)	12e. Was a seat belt used to hold the child seat in place?  [ ] No (if "No", go to question 12g)  [ ] Yes (if "Yes", go to question 12f)  [ ] Unknown	
[ ] Unknown	12f. Can you describe how the seat belt was secured to the child seat?	
11c. Was the passenger air bag inflated in a previous accident?  [ ] No (go to question 12)  [ ] Yes (go to question 11d)  [ ] Unknown  11d. Was the passenger air bag re-installed after the	[ ] Looped through designated rear framing struts? [ ] Looped through arm rest slots? [ ] Belt across safety shield? [ ] Looped through rear frame outside the designated framing struts? [ ] Other (specify): [ ] Unknown	
accident? [ ] No (go to question 12) [ ] Yes [ ] Unknown	12g. What was the child safety seat equipped with at the time of purchase? (check all that apply) [ ] Harness [ ] Shield	
11e. Did the passenger air bag inflate as you expected? [ ] No (If "No" describe below)	[ ] Tether strap  If any box is checked, ask questions 12h - 12i.	
[ ] Yes [ ] Unknown		

National Accident Sampling System-Crashworthiness Date	ta System: Interview Form (B) Page 4
1. Primary Sampling Unit Number	3. Vehicle Number
2. Case Number - Stratum 9408	4. Occupant Number
VEHICLE/DRIVER DATA (	QUESTIONS (CONTINUED)
12h. Were any of these items added after you owned the child safety seat? [ ] Yes (specify) [ ] No [ ] Unknown	OPTIONAL  If you do not know where the vehicle is or if the owner's permission is needed for inspection.  15. Do you know where the vehicle is currently located?
12i. Were any of these items used during the accident?  [ ] Yes (If "Yes", check all that apply)	16. May I take a look at your vehicle to assess the damage? [ ] No [ ] Yes
[ ] Unknown	DRIVER ONLY
CARGO WEIGHT AND MILEAGE  13. Was there any cargo in your vehicle? [ ] No (If "No", go to question 14) [ ] Yes (If "Yes", go to question 13a) [ ] Unknown	17. What race do you consider yourself?  [ / White    [ ] Black    [ ] American Indian, Eskimo or Aleut, Asian or Pacific Islander    [ ] Other (specify:)
13a. Can you estimate the weight of the cargo?	[ ] Unknown.  18. Are you of hispanic origin? [ No [ ] Yes
Cargo description REP SAMPLES  10 100 15-20 165  14. Can you tell me the mileage on the vehicle?  40 000 miles	
<del>_</del>	<del>-</del>
	·
	·

lational Accident Sampling System-Crashworthiness Date	System: more rount (b) reye o
1. Primary Sampling Unit Number	3. Vehicle Number
2. Case Number - Stratum. 9 4 6 8	4. Occupant Number
OCCUPANT DAT	TA QUESTIONS
1. Was there anyone else in your vehicle at the time of the accident?  [ No (If "No", go to question 4)  [ ] Yes (If "Yes", specify number in question 2 below	5d. Were you (Was he/she) [ ] Sitting upright or [ ] Learning to left side, or [ // Learning to right side?
and then go to question 3)	OCCUPANT EJECTION
2. How many? [1] One other person [2] Two other persons [3] Three other persons [4] Four other persons	6. Were you (Was he/she) or any part of your (his/her) body thrown from the vehicle during the accident?  [ ☑ No (If "No", go to question 7)  [ ] Yes (If "Yes", go to question 6a)  [ ] Unknown
[5] Five other persons [6] Six other persons	6a. Can you remember out of what area of the vehicle you were (he/she was) thrown?
[7] Seven or more other persons (specify number:)	[ ] No
	[ ] Yes (Describe:)
3. Where was this person sitting? (Circle seating positions)	OCCUPANT DECEDAINT
[12] [13] [21] [22] [23]	OCCUPANT RESTRAINT
[31] [32] [33] [ ] Other (specify:)	7. Were you (Was he/she) wearing a seat belt just before the accident?
( ) Other (specify)	[ ] No (If "No", go to question 8)
OCCUPANT CHARACTERISTICS	[/] Yes [ ] Unknown
4. Can I have your (his/her) height, weight, age, and sex?	7a. Were you (Was he/she) wearing the
Height <u>5'4"</u> Weight <u>118</u> Age <u>31</u> Sex: [] Male [1 Female	[ ] Lap belt? [ ] Lap and Shoulder belt? [ ] Shoulder belt?
Sex: [ ] Male [ ] Female	7b. Can you describe how you were (he/she was) wearing
OCCUPANT POSTURE	the lap belt?
5. Can you tell me how you (he/she was) were sitting in your vehicle?	[ ] Other (specify:) +19h T [ ] Unknown
Leaning down to pick	7c. Can you describe how you were (he/she was) wearing the shoulder belt?
	[v] Over the shoulder
5a. Can you describe the location of your (his/her) feet just prior to the collision?	[ ] Behind the back
- left on floor	[ ] Behind the seat [ ] Other (specify:)
Right on BRAKE I think	7d. Did any part of the belt system break or tear?
5b. Can you describe the location of your (his/her) arms?	[ ] Yes (If "Yes", describe)
Left on wheel Right	[ ] Unknown
going to grab wheel	OCCUPANT ENTRAPMENT
5c. Was your (his/her) back resting against the seat back rest?  No (If "No", describe the position)	8. Weze you (Was he/she) trapped in the vehicle? [V] No [ ] Yes (If "Yes", describe)
[ ] Yes [ ] Unknown	
, , 5	[ ] Unknown

National Accident Sampling System-Crashworthiness Data System: Interview Form (B) Page 7 Case Number-Stratum 9 40 8 Vehicle Number 0 / PSU Number / O Occupant Number O INJURY DATA FROM INTERVIEWEE(S) Indicate the Location, Lesion, Detail, and Source of all injuries. Specify interviewee(s): FACE, SOFT TISSUE/INTERNAL INJURIES wind burn Throat
VERY , rratated
esophagus spasms
eso Pragus spasms
Eso Re Flex , Laryngithst

AIR bag dust

Bumps on
VOCAL corps
Swollen

PER Specialist **SKELETAL INJURIES** 

The space provided on the back of this page may be used to document injuries noted by the interviewee(s).

ational Accident Sampling System-Crashworthiness Date	System: Interview Form (B) Page 8
1. Primary Sampling Unit Number / O	3. Vehicle Number
2. Case Number - Stratum 9408	4. Occupant Number
OCCUPANT INJURY	DATA QUESTIONS
1. Were you (Was he/she) injured?  [ ] No (If "No", skip to question 7)  [ ] Yes (If "Yes", complete Occupant Injury Questions)  [ ] Unknown  2. Did you (he/she) receive any cuts, abrasions, or bruises?  [ ] No (go to question 3)  [ ] Yes (If "Yes", record the exact location(s) and size on the manikin(s).)  [ ] Unknown  2a. Do you know what caused your (his/her) injury(s)?	<ul> <li>5a. Do you know what caused this injury? <ol> <li>No</li> <li>Yes (If "Yes", specify the component(s) on the manikin(s).)</li> <li>Unknown</li> </ol> </li> <li>6. Did you (he/she) suffer any joint sprains or muscle strains? <ol> <li>No (If "No", go to question 7)</li> <li>Yes (If "Yes", specify on the manikin(s), and then go to question 6a.)</li> <li>Unknown</li> </ol> </li> </ul>
[ ] No [ ] Yes (If "Yes", specify the component(s) or object(s) on the manikin(s).) [ ] Unknown  3. Did you (he/she) experience any broken bones?	6a. Do you know what caused the injury(s)? [ ] No [ ] Yes (If "Yes", specify the component(s) on the manikin(s).) [ ] Unknown
<ul> <li>No (If "No", go to question 4)</li> <li>Yes (If "Yes", record the exact location(s) and type of fracture(s) on the manikin(s), and then go to question 3a.)</li> <li>Unknown</li> </ul>	7. Did you (he/she) receive any treatment? [ ] No (If "No", go to question 8) [ ] Yes (If "Yes", go to question 7a or return to question 2.)
3a. Do you know what caused the injury(s)?  [ ] No  [ ] Yes (If "Yes", specify the component(s) or object(s) on the manikin(s).)  [ ] Unknown	7a. Were you (Was he/she) treated by (check all that apply):  [ ] Hospital/trauma center? (specify hospital name):  [ ] Medical clinic
<ul> <li>4. Did you (he/she) injure your (his/her) head? (skull/brain?)</li> <li>[ ] No (If "No", go to question 5)</li> <li>[ ] Yes (If "Yes", describe the type of injury(s) on the manikin(s), then go to question 4a.)</li> <li>[ ] Unknown</li> </ul>	[ ] Out patient surgery? (specify medical facility:)  [ ] Paramedics or first aid at the scene?  [ ] A doctor in his/her office?  [ ] Treated at home?  [ ] None of the above, go to question 8.
4a. Do you know what caused the injury(s)?  [ ] No [ ] Yes (If "Yes", specify the component(s) on the manikin(s).) [ ] Unknown	7b. Were you (Was he/she) treated and released from the emergency room? [ ] No (If "No", go to question 7c.) [ ] Yes (If "Yes", go to question 7e.)
<ul> <li>5. Were any of your (his/her) internal organs injured?</li> <li>[ ] No (if "No", go to question 6)</li> <li>[ ] Yes (if "Yes", thoroughly describe the type of injury(s) and specify the internal organ(s) injured on the manikin(s), and then go to question 5a.)</li> <li>[ ] Unknown</li> </ul>	7c. 'Were you (Was he/she) hospitalized? [ ] No (If "No", give an explanation) [ ] Yes (If "Yes", go to question 7d.)  7d. How many days were you (was he/she) in the hospital?  days

nal Accident Sampling System-Crashworthine Primary Sampling Unit Number	3. Vehicle Number	
		01
		<del></del>
:. Have you (Has he/she) received any fol	•	
treatment? [ ] No [ v/ Yes (If "Yes", describe:)  DR 5 vist:	(college)? [ ] No [ ] Yes (If "Yes", determine (Specify:) 40 5	the number of days los DAYS
[ ] Unknown	[ ] Not working prior to the	
In order to achieve the best possible scientific regarding your (his/her) injury(s), we need to o copy of your (his/her) medical reports. Wou (he/she) sign a medical release form?	otain a	atory
[ ] No [ ] Yes (If "Yes", mail or present the for signature.)	m for Problems Throat,	W125,30x
	·	

# Appendix G:

NASS CDS Occupant Assessment Form:

Case Vehicle Driver



# OCCUPANT ASSESSMENT FORM

Form Approved O.M.B. No. 2127-0021

· NATIONAL ACCIDENT SAMPLING SYSTEM

U.S. Department of Transportation National Highway Traffic Safety

dministration	· CRASHWORTHINESS DATA SYSTEM
1. Primary Sampling Unit Number	OCCUPANT'S SEATING
2. Case Number - Stratum 9 4 0 8	10. Occupant's Seat Position
3. Vehicle Number	(11) Left side (12) Middle
4. Occupant Number	(13) Right side (14) Other (specify):
OCCUPANT'S CHARACTERISTICS	(15) On or in the lap of another occupant
5. Occupant's Age Code actual age at time of accident. (00) Less than one year old (specify by month):  (97) 97 years and older (99) Unknown	Second Seat (21) Left side (22) Middle (23) Right side (24) Other (specify): (25) On or in the lap of another occupant
6. Occupant's Sex (1) Male (2) Female (9) Unknown	Third Seat (31) Left side (32) Middle (33) Right side (34) Other (specify): (35) On or in the lap of another occupant
7. Occupant's Height Code actual height to the nearest centimeter. (999) Unknown  Let 4 inches X 2.54 = 163 centimeters	Fourth Seat (41) Left side (42) Middle (43) Right side (44) Other (specify): (45) On or in the lap of another occupant (97) In or on unenclosed area (98) Other seat (specify): (99) Unknown
8. Occupant's Weight Code actual weight to the nearest kilogram. (999)Unknown  1 2 pounds X .4536 = 54 kilograms	11. Occupant's Posture (0) Normal posture  Abnormal posture
9. Occupant's Role (1) Driver (2) Passenger (9) Unknown	<ul> <li>(1) Kneeling or standing on seat</li> <li>(2) Lying on or across seat</li> <li>(3) Kneeling, standing or sitting in front of seat</li> <li>(4) Sitting sideways or turned to talk with another occupant or to look out a rear window</li> <li>(5) Sitting on a console</li> <li>(6) Lying back in a reclined seat position</li> <li>(7) Bracing with feet or hands on a surface in front of seat</li> <li>(8) Other abnormal posture (specify):    CANING +0 Kght 0r     Unknown 3+ARting +0 Stanghten</li> </ul>

	EJE	CTION/E	NTRAPMENT
12.	Ejection (0) No ejection (1) Complete ejection (2) Partial ejection (3) Ejection, unknown degree (9) Unknown	0	15. Medium Status (Immediately Prior To Impact) (0) No ejection (1) Open (2) Closed (3) Integral structure (9) Unknown
13.	Ejection Area (0) No ejection (1) Windshield (2) Left front (3) Right front (4) Left rear (5) Right rear (6) Rear (7) Roof (8) Other area (e.g., back of pickup, etc. (specify): (9) Unknown	0	16. Entrapment (NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.) (0) Not entrapped (1) Entrapped (9) Unknown
14.	Ejection Medium  (0) No ejection (1) Door/hatch/tailgate (2) Nonfixed roof structure (3) Fixed glazing (4) Nonfixed glazing (specify):  (5) Integral structure (8) Other medium (specify):	۵	
	<u>.</u>		<u>-</u> - · · · ·

RESTRAINT SYST	EM EVALUATION
17. Manual (Active) Belt System Availability (0) None available (1) Belt removed/destroyed (2) Shoulder belt (3) Lap belt (4) Lap and shoulder belt (5) Belt available—type unknown	21. Air Bag System Availability/Function (0) Not equipped/not available (1) Air bag  Non-functional (2) Air bag disconnected (specify):  (3) Air bag not reinstalled
Integral Belt Partially Destroyed  (6) Shoulder belt (lap belt destroyed/removed)  (7) Lap belt (shoulder belt destroyed/removed)  (8) Other belt (specify):  (9) Unknown  18. Manual (Active) Belt System Use (00) None used, not available, or belt removed/destroyed (01) Inoperative (specify):  (02) Shoulder belt (03) Lap belt (04) Lap and shoulder belt (05) Belt used—type unknown (08) Other belt used (specify):	(9) Unknown  22. Air Bag System Deployment (0) Not equipped/not available (1) Air bag deployed during accident (as a result of impact) (2) Air bag deployed inadvertently just prior to accident (3) Air bag deployed, accident sequence undetermined (4) Nondeployed (5) Unknown if deployed (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical) (9) Unknown
(12) Shoulder belt used with child safety seat (13) Lap belt used with child safety seat (14) Lap and shoulder belt used with child safety seat (15) Belt used with child safety seat—type unknown (18) Other belt used with child safety seat (specify): (99) Unknown if belt used  19. Proper Use of Manual (Active) Belts (0) None used or not available (1) Belt used properly (2) Belt used properly with child safety seat	23. Are There Indications of Air Bag System Failure? (O) Not equipped/not available (1) No (2) Yes (specify): (9) Unknown  Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts
Belt Used Improperly (3) Shoulder belt worn under arm (4) Shoulder belt worn behind back or seat (5) Belt worn around more than one person (6) Lap belt worn on abdomen (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): (8) Other improper use of manual belt system (specify):	24. Police Reported Restraint Use (0) None used (1) Police did not indicate restraint use (2) Shoulder belt (3) Lap belt (4) Lap and shoulder belt (5) Belt used, type not specified (6) Child safety seat (7) Other or automatic restraint (specify):  (8) Restrained, type unknown (9) Police indicated "unknown"
20. Manual (Active) Belt Failure Modes During Accident (0) No manual belt used (1) No manual belt failure(s) (2) Torn webbing (stretched webbing not included) (3) Broken buckle or latchplate (4) Upper anchorage separated (5) Other anchorage separated (specify): (6) Broken retractor (7) Combination of above (specify): (8) Other manual belt failure (specify):	(a) Funce mulcated unitality

	HEAD RESTR	AINT AN	ID SEAT EVALUATION
25.	Head Restraint Type/Damage by Occupant at This Occupant Position  (0) No head restraints  (1) Integral—no damage  (2) Integral—damaged during accident  (3) Adjustable—no damage  (4) Adjustable—damaged during accident  (5) Add-on—no damage  (6) Add-on—damaged during accident  (8) Other (specify):		27. Seat Performance (this Occupant Position)  (0) Occupant not seated or no seat  (1) No seat performance failure(s)  (2) Seat adjusters failed  (3) Seat back folding locks or "seat back" failed  (specify):  (4) Seat track/anchors failed  (5) Deformed by impact of occupant  (6) Deformed by passenger compartment intrusion  (specify):
	(9) Unknown	I	(7) Combination of above (specify):
26.	Seat Type (this Occupant Position) (00) Occupant not seated or no seat (01) Bucket (02) Bucket with folding back (03) Bench (04) Bench with separate back cushions (05) Bench with folding back(s)	99	(8) Other (specify):  (9) Unknown
	(06) Split bench with separate back cushic (07) Split bench with folding back(s) (08) Pedestal (i.e., column supported) (09) Other seat type (specify):	ons	
	(10) Box mounted seat (i.e., van type) (99) Unknown		
-			- • • •
			-

CHILD SAF	ETY SEAT
28. Child Safety Seat Make/Model (000) No child safety seat Applicable codes are found in your NASS CDS Data Collection, Coding and Editing (950) Built-in child safety seat (997) Other make/model (specify):	31. Child Safety Seat Harness Usage  32. Child Safety Seat Shield Usage
(998) Unknown make/model (999) Unknown if child safety seat used	33. Child Safety Seat Tether Usage  Note: Options below applicable to Variables OA31-OA33.  (00) No child safety seat
29. Type of Child Safety Seat (0) No child safety seat (1) Infant seat (2) Toddler seat (3) Convertible seat (4) Booster seat (7) Other type child safety seat (specify):  (8) Unknown child safety seat type (9) Unknown if child safety seat used	Not Designed With Harness/Shield/Tether (01) After market harness/shield/tether added, not used (02) After market harness/shield/tether used (03) Child safety seat used, but no after market harness/shield/tether added (09) Unknown if harness/shield/tether added or used  Designed With Harness/Shield/Tether (11) Harness/shield/tether not used (12) Harness/shield/tether used (19) Unknown if harness/shield/tether used
30. Child Safety Seat Orientation (00) No child safety seat  Designed for Rear Facing for This Age/Weight (01) Rear facing (02) Forward facing (08) Other orientation (specify):  (09) Unknown orientation  Designed For Forward Facing for This Age/Weight (11) Rear facing (12) Forward facing (18) Other orientation (specify):  (19) Unknown orientation  Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight (21) Rear facing (22) Forward facing (28) Other orientation (specify):  (29) Unknown orientation (99) Unknown if child safety seat used	Unknown If Designed With Harness/Shield/Tether (21) Harness/shield/tether not used (22) Harness/shield/tether used (29) Unknown if harness/shield/tether used (99) Unknown if child safety seat used

	INJURY CONSEQUENCES	38. Working Days Lost 9 9
<u> </u>	Initial Constitution Paris	Code the number of days
34.	Injury Severity (Police Rating)	(up through 60) that the occupant
	(0) O - No injury	lost from work due to the accident (00) No working days lost (61) 61 days or more (62) Fatally injured (97) Not working prior to accident    Comparison of the decident   Comparison of the de
	(1) C - Possible injury	(00) No working days lost $UNFN$ how (61) 61 days or more
	(2) B - Nonincapacitating injury	(62) Fatally injured
	(3) A - Incapacitating injury	(97) Not working prior to accident
	(4) K - Killed	(99) Unknown
	(5) U - Injury, severity unknown	
	(6) Died prior to accident (9) Unknown	STOP-RO TO VARIABLE 44 ON PAGE 7
	(3) Ulikilowii	DIUF MUHU TARIABLE 44 UR FAUE /
	,	VARIABLES 39 THROUGH 43 ARE
35.	Treatment - Mortality	COMPLETED BY THE ZONE CENTER
	(0) No treatment	***************************************
	(1) Fatal	<b>∧</b> ∧
	(2) Fatal - ruled disease (specify):	39. Time to Death
		Code number of hours from time of
	Nonfatal	accident to time of death up through 24 hours. If time of death is greater than 24
	(3) Hospitalization	hours, code number of days. (Note: 1 day =
	(4) Transported and released	31, 2 days = 32, n days = 30 +n up
	(5) Treatment at scene - nontransported	through 30 days = 60)
	(6) Treatment later	(00) Not fatal
	(8) Treatment - other (specify):	(96) Fatal - ruled disease
	(9) Unknown	(99) Unknown
	ļ	
26	Time Of Medical English (for Initial Treasures) 5	40. 1st Medically Reported Cause of Death O
<b>36</b> .	Type Of Medical Facility (for Initial Treatment) (0) Not treated at a medical facility	_
	(1) Trauma center	41. 2nd Medically Reported Cause of Death <u>O</u>
	(2) Hospital	42. 3rd Medically Reported Cause of Death
	(3) Medical clinic	Code the Occupant Injury from line
	(4) Physician's office	number(s) for the medically reported
	(5) Treatment later at medical facility	injury(s) which reportedly contributed to
	(8) Other (specify):	this occupant's death
	(9) Unknown	(00) Not fatal or no additional causes
	(a) CHRIGAII	(96) Mode of death given but specific injuries are not linked to cause
		of death. (specify):
37.	Hospital Stay	o. adada. (apadiiy).
	(00) Not Hospitalized	(97) Other result (includes fatal ruled
	Code the number of days (up through 60)	disease) (specify):
-	that the occupant stayed in hospital.	
_	(61) 61 days or more	(99) Unknown
	(99) Unknown	
		43. Number of Recorded Injuries for
		This Occupant
		Code the actual number of
		injuries recorded for this occupant.
		(00) No recorded injuries
		(97) Injured, details unknown
		(99) Unknown if injured
	·	

			_	
	AUTOMATIC BELT SYSTEM		48.	Automatic (Passive) Belt Failure Modes
44.	Automatic (Passive) Belt System Availability/ Function (0) Not equipped/not available (1) 2 point automatic belts (2) 3 point automatic belts (3) Automatic belts - type unknown  Non-functional			During Accident (0) Not equipped/not available/not in use (1) No automatic belt failure(s) (2) Torn webbing (stretched webbing not included) (3) Broken buckle or latchplate (4) Upper anchorage separated (5) Other anchorage separated (specify):
	(4) Automatic belts destroyed or rendered inoperative (9) Unknown			<ul> <li>(6) Broken retractor</li> <li>(7) Combination of above (specify):</li> <li>(8) Other automatic belt failure (specify):</li> <li>(9) Unknown</li> </ul>
45.	Automatic (Passive) Belt System Use	0		(a) Chalcott
43.	<ul> <li>(0) Not equipped/not available/destroyed or rendered inoperative</li> <li>(1) Automatic belt in use</li> <li>(2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):</li> <li>(3) Automatic belt use unknown</li> <li>(9) Unknown</li> </ul>		49.	Seat Orientation (this Occupant Position) (0) Occupant not seated or no seat (1) Forward facing seat (2) Rear facing seat (3) Side facing seat (inward) (4) Side facing seat (outward) (8) Other (specify):
		_		(9) Unknown
46.	Automatic (Passive) Belt System Type (0) Not equipped/not available (1) Non-motorized system (2) Motorized system (9) Unknown	<u>0</u>		
				Check the Primary Source Used In Determining Belt Use.
47.	Proper Use of Automatic (Passive) Belt System  (0) Not equipped/not available/not used (1) Automatic belt used properly (2) Automatic belt used properly with child safety seat  Automatic Belt Used Improperly (3) Automatic shoulder belt worn under arm (4) Automatic shoulder belt worn behind back (5) Automatic belt worn around more than one person (6) Lap portion of automatic belt worn on abdomen (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): (8) Other improper use of automatic belt syste (specify): (9) Unknown			[ ] Not equipped/not available/destroyed or rendered inoperative [ ] Vehicle inspection [ ] Official injury data [ ] Driver/occupant interview' [ ] Other (specify): [ ] Unknown if belt used
	ARE ALL APPLICABLE MEDICAL R WITH INITIAL SUBMISSION?	ECO	RDS	INCLUDED NO [1/] YES [ ]
	WITH INITIAL SUBMISSION?			
	UPDATE CANDIDA	TE?		NO [ ] YES [ /

(at Medical Facility) (OO) Not injured (9) Unknown if belt used	3
(at Medical Facility) (OO) Not injured (8) Other (specify): (9) Unknown if belt used	 -
(01) Injured - not treated at medical facility (02) No GCS Score at medical facility (03-15) Code the actual value of the initial GCS Score recorded at medical facility. (97) Injured, details unknown (99) Unknown if injured	
51. Was the Occupant Given Blood? (1) No - blood not given (2) Yes - blood given (specify units): (9) Unknown if blood given	
52. Arterial Blood Gases (ABG) - HCO <sub>3</sub> (00) Not injured (01) Injured, ABGs not measured or reported (02-50) Code the actual value of theHCO <sub>3</sub> (96) ABGs reported, HCO <sub>3</sub> unknown (97) Injured, details unknown (99) Unknown if injured	

# Appendix H:

NASS CDS Occupant Injury Form:

Case Vehicle Driver

Administration

U.S. Department of Transportation National Highway Traffic Safety

**OCCUPANT INJURY FORM** 

Form Approved O.M.B. No. 2127-0021

NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

2. Case Number - Stratum

9408

3. Vehicle Number

4. Occupant Number

01

## **INJURY DATA**

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

	Source of Injury Data	Body Region	Type of Anatomic Structure			A.I.S. Severity	Aspect	Injury Source	Injury Source Confidenc Level	Direct/ e Indirect Injury	Occupant Area Intrusion Number
1st	5. <u>7</u>	6. <u>2</u>	7. 9	s. <u>0 2</u>	9. <u>0 2</u>	10	11. 7	12.45	13. 2	14	15. <u>00</u>
2nd	16. 7	17. 7	18. 9	19. <u>0 Z</u>	20. <u>0 Z</u>	21. /	22. /	23. <u>45</u>	24.2	25	26. 00
3rd	27	28	29 :	30	31	32	33	34	35	36	37
4th	38	39	40	41	42	43	44	45	46	47	48
5th	49	50	51	52	53	54	55	56	57	58	59
6th	60	61	62	63	64	65	66	67	68	69	70
7th	71	72	73	74	75	76	77	78	79	80	81
8th	82	83	84	85. <u> </u>	86	87	88	89	90	91	92
9th	93	94	95	96	97	98	99	100	101	102 1	03
10th	104	105 1	106 1	07	108	109	110	111	112	113 1	14

	OCCUPANT INJURY DATA										
	Source of Injury Data	Body Region	Type of Anetomic Structure	A.I.S 90 Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
11th			· • • • • • • • • • • • • • • • • • • •						. —		
12th	-	_				· <del></del> . ,				****	
13th		_	<del></del>			. <del>-</del>	—	· <del></del>	<del>.</del>	-	
14th	_	_							-		
15th		_									<del></del>
16th		_				— .··		<del></del>			
17th	_					_	· · · · · · · · · · · · · · · · · · ·				· · · ·
18th	_		_		<u></u> -	_		· ·			
19th		_	_			_					
20th	_	_	_			_	· -				·
21 <b>s</b> t		_	_			_	_				-
	_	_				-	_		_	_	
23rd	<del>_</del>	_			<del></del> -		_				: <del></del>
24th			_			**********			·	:	
25th					***************************************		_				

# INJURY DATA — SOFT TISSUE INJURIES

Pre-crash through Time frame:

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

· No codeable injuries reported!

Possible larynx, vocal cord, and/or esophageal injury

> · No record of immediate postcrash physician visit!

Records of family
physican contain information regarding 9
visits including a visit
to a pulmonary specialist,
an ER visit, and a
preliminary visit to an
ENT specialist.

#### (61) Backlight storage rack, door, etc. SOURCE OF INJURY DATA (25) Left eide window glass or frame (26) Left side window glass including (62) Other rear object (specify): OFFICIAL (1) Autopsy records with or without hospital/ one or more of the following: frame, window sill, A (A1/A2)-piller, medical records B-pillar, or roof side rail. EXTERIOR of OCCUPANT'S VEHICLE (2) Hospital/medical records other than (27) Other left side object (specify): (65) Hood emergency room (e.g., discharge (66) Outside hardware (e.g., outside summary) (28) Left side window sill mirror, antenna) (3) Emergency room records only (including (67) Other exterior surface or tires associated X-rays or other lab reports) RIGHT SIDE (specify): (4) Private physician, walk-in or emergency (30) Right side interior surface, (68) Unknown exterior objects excluding hardware or armrests UNOFFICIAL (31) Right side hardware or armrest **EXTERIOR OF OTHER MOTOR VEHICLE** (32) Right A (A1/A2)-pillar (70) Front bumper (5) Lay coroner report (71) Hood edge (6) E.M.S. personnel (33) Right B-piller (34) Other right pillar (specify): (72) Other front of vehicle (specify): (8) Other source (specify): (35) Right eide window glass or frame (73) Hood (36) Right side window glass including (74) Hood omement (9) Police one or more of the following: (75) Windshield, roof rail, A-pillar treme, window sill, A (A1/A2)-piller, (76) Side surface B-piller, or roof side rail. INJURY SOURCE (77) Side mirrors (78) Other side protrusions (specify) (37) Other right side object (specify): FRONT (01) Windshield (38) Right side window sill (79) Rear surface (O2) Mirror (80) Undercerriage (03) Sunvisor INTERIOR (81) Tires and wheels (04) Steering wheel rim (40) Seat, back support (82) Other exterior of other motor vehicle (05) Steering wheel hub/spoke (41) Belt restraint webbing/buckle (specify): (06) Steering wheel (combination (42) Belt restraint B-piller or door frame of codes 04 and 05) (83) Linknown exterior of other motor vehicle attachment point (07) Steering column, transm selector lever, other attachment (43) Other restraint system component OTHER VEHICLE OR OBJECT IN THE (specify): (OB) Add on equipment (e.g., CB, tape **ENVIRONMENT** deck, eir conditioner) (44) Head restraint system (45) Air bag (use codes "16" and "17" for injuries (84) Ground (09) Left instrument panel and below sustained from air bag compartment covers) (85) Other vehicle or object (specify) (10) Center instrument panel and below (46) Other occupants (specify): (11) Right instrument panel and below (86) Unknown vehicle or object (12) Glove compartment door (47) Interior loose objects (13) Knee bolster (48) Child safety seat (specify): NONCONTACT INJURY (14) Windshield including one or more of the following: front header, (90) Fire in vehicle A (A1/A2)-pillar, instrument panel, (49) Other interior object (specify): (91) Flying glass (92) Other noncontact injury source mirror, or steering assembly (driver (specify): side only) (93) Air bag exhaust gases (15) Windshield including one or more ROOF of the following: front header, (97) Injured, unknown source (50) Front header A (A1/A2)-pillar, instrument panel, or (51) Rear header mirror (passenger side only) (52) Roof left side rail INJURY SOURCE CONFIDENCE (16) Driver side air bag compartment cover (53) Roof right side rail LEVEL (17) Passenger side air bag compartment cover (54) Roof or convertible top (1) Certain (18) Windshield reinforced by exterior object Probable (specify): FLOOR (3) Possible (19) Other front object (specify): (56) Floor (including toe pan) (57) Floor or console mounted transmission lever, including LEFT SIDE console **DIRECT/INDIRECT INJURY** (20) Left side interior surface, (5B) Parking brake handle Direct contact injury

excluding hardware or armrests (21) Left side herdwere or ermrest

(22) Left A (A1/A2)-piller

(23) Left B-piller

(24) Other left piller (specify):

(59) Foot controls including parking brake

#### REAR

(60) Backlight (rear window)

#### OCCUPANT INJURY CLASSIFICATION

### **Bedy Region**

- Head (2) Face
- (4) Thorax
- Abdomen
- 16)
- (7) **Upper Extremity**
- (9) Unspecified

#### Type of Anetomic Structure

- Whole Area
- (2) Vessels
- Nerves
- (4) Organs (includes muscles/
- (6) Skeletal (includes joints)
- Head LOC (6) (9) Skin

#### Specific Anatomic Structure

- Whole Area (02) Skin Abrasion
- (04) Skin Contusion
- (06) Skin Lecuration Skin - Avusion
- (10) Amoutation
- (20) Burn
- (30) Crush Dealovina
- Injury NFS
- (90) Trauma, other than mechanical

- Head LOC (02) Length of LOC
- (04, 06, 08) Level of Consciousness
- (10) Concussion

# Cervical

- (04) Thoracic
- (06) Lumbar

### Vessels, Nerves, Organs, Bones, Joints are assigned consecutive two digit numbers beginning with 02

#### Level of Injury

Specific injuries are assigned consecutive two-digit numbers beginning with 02.

To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is signed to any injury NFS as to lesion or severity.

# **Abbreviated Injury Scale**

- Minor injury Moderate injury (2)
- Serious injury
- (3) (4) Severe injury
- Critical injury (5)
- Maximum (untrestable) 161
- (7) Injured, unknown severity

#### Aspect

Indirect contact injury

Injured, unknown source

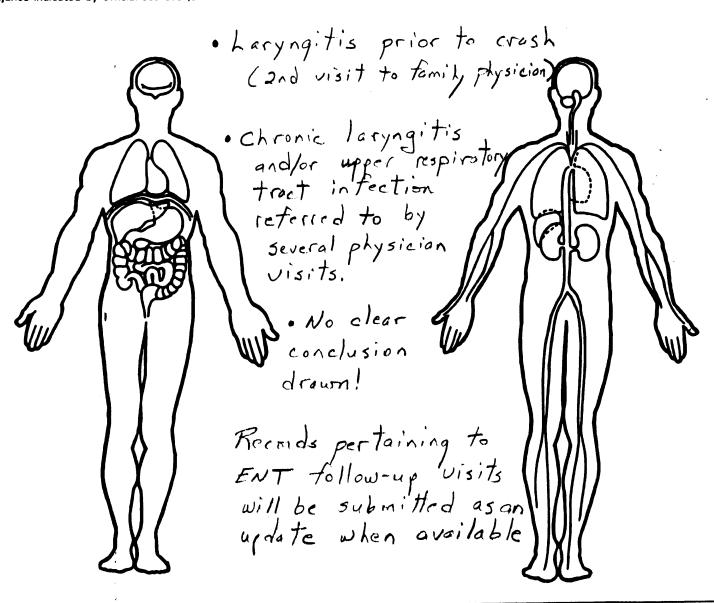
Noncontact injury

(3)

- (1) Right
- Left Bilatera
- (3) (4) (5) Central
- Anterior
- (6) Posterior
- (7) Interior
- (9) Unknown
- (0) Whole region

## OFFICIAL INJURY DATA -INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



National Accident Samp

#### **SOURCE OF INJURY DATA OFFICIAL**

- (1) Autopsy records with or without hospital/ redical records
- (2) Hospital/medical records other than emergency room (e.g., discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency

#### UNOFFICIAL

- (5) Lav coroner report
- (6) E.M.S. personnel
- Interviewee
- (8) Other source (specify):
- (9) Police

#### **INJURY SOURCE**

#### FRONT

- (01) Windshield
- (O2) Mirror
- (O3) Supvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee boister
- (14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel. mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (16) Driver side air bag compartment cover
- Passenger side air bag compartment cover
- (18) Windshield reinforced by exterior object (specify)
- (19) Other front object (specify):

#### LEFT SIDE

- (20) Left side intenor surface. excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A (A1/A2)-pillar
- (23) Left B-piller
- (24) Other left pillar (specify):

- (25) Left side window glass or frame (26) Left side window glass including one or more of the following: trame, window sill, A (A1/A2)-pillar, B-piller, or roof side rail.
- (27) Other left side object (specify):
- (28) Left side window sill

#### RIGHT SIDE

- (30) Right side interior surface. excluding hardware or armrests
- Right side hardware or armrest
- (32) Right A (A1/A2)-pillar
- (33) Right B-pillar
- (34) Other right pillar (specify):
- (35) Right side window glass or frame
- Right side window glass including one or more of the following: trame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (37) Other right side object (specify):
- (38) Right side window sill

#### INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-piller or door frame attechment point
- (43) Other restraint system component (specify):
- (44) Head restraint system
- (45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)
- (46) Other occupants (specify):
- (47) Interior loose objects
- (48) Child safety seat (specify):
- (49) Other interior object (specify):

### ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

#### **FLOOR**

- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

#### REAR

(60) Backlight (rear window)

- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify):

#### EXTERIOR of OCCUPANT'S VEHICLE

- (65) Hood
- (66) Outside hardware (e.g., outside mirror, antenna)
- (67) Other exterior surface or tires (specify):
- (68) Unknown extenor objects

#### EXTERIOR OF OTHER MOTOR VEHICLE

- (70) Front bumper
- (71) Hood edge
- (72) Other front of vehicle (specify):
- (73) Hood
- (74) Hood omament
- (75) Windshield, roof rail, A-piller
- (76) Side surtace
- (77) Side mirrors
- (78) Other side protrusions (specify)
- (79) Rear surface
- (80) Undercarriage
- (R1) Time and wheels
- (82) Other exterior of other motor vehicle (specify):
- (83) Unknown exterior of other motor vehicle

### OTHER VEHICLE OR OBJECT IN THE

- ENVIRONMENT
- (84) Ground
- (85) Other vehicle or object (specify)
- (86) Unknown vehicle or object

#### NONCONTACT INJURY

- (90) Fire in vehicle
- (91) Flying glass
- Other noncontact injury source (92) (specify):
- (93) Air bag exhaust gases
- (97) Injured, unknown source

#### INJURY SOURCE CONFIDENCE LEVEL

- (1) Certain
- (2) Probable
- (3) Possible
- (8) Unknown

### **DIRECT/INDIRECT INJURY**

- Direct contact injury
- Indirect contact injury Noncontact injury
- Injured, unknown source

### OCCUPANT INJURY CLASSIFICATION

#### Body Region

- Head
- (2) Face

(9)

- Neck (4) Thorax
- Abdomen (6) Spene
- Upper Extremity
- Lower Extremity (8) Unspecified

## Type of Anatomic Structure

- Whole Area
- Vesseis
- (3) Nerves
- (4) Organs (includes muscles/
- **(**5) Skeletal (includes joints)
- Head LOC (9) Skin

- Specific Anatomic Structure
- Whole Area (02) Skin Abrasion
- (04) Skin Contusion (06) Skin - Lac ration (08) Skin - Av. sion
- (10) Amputation
- (20) Burn (30) Crush
- (40) Degloving
- Injury NFS

- Head LOC (02) Length of LOC (10) Concussion
- Trauma, other than mechanical
- (04, 06, 08) Level of Consciousness

- Cervical Thoracic (06) Lumbar

# Vessels, Nerves, Organs. Bones, Joints are assigned consecutive two digit numbers beginning with 02

# Level of injury

Specific injuries are assigned consecutive two-digit numbers beginning with 02.

To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.

### Abbreviated Injury Scale

- Minor injury
- (2) Moderate injury
- Serious injury Severe injury

Critical injury

Maximum (untreatable) Injured, unknown seve

## Aspect

(5)

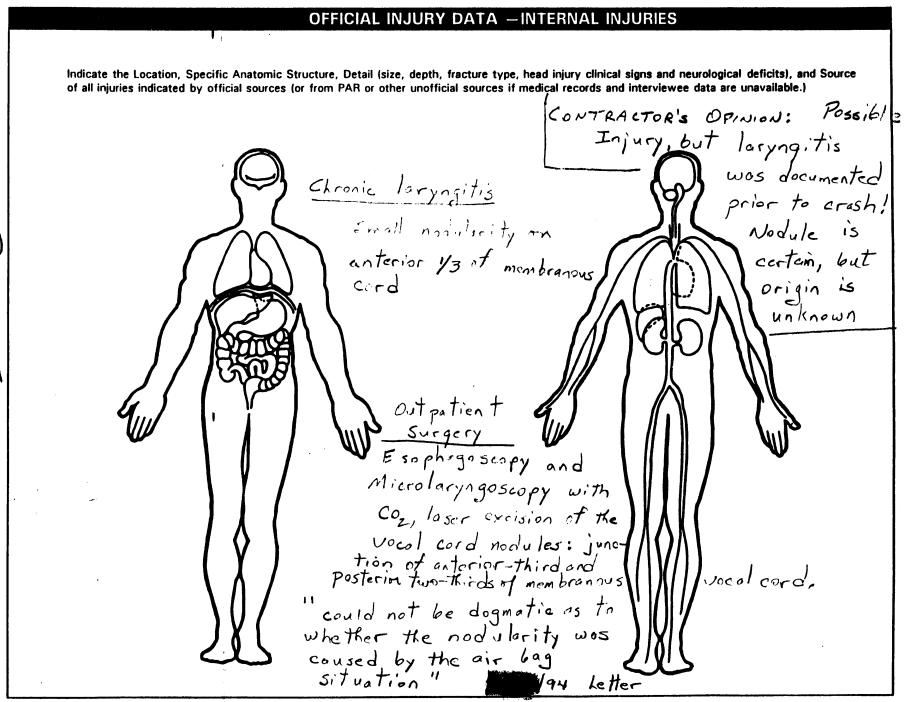
- (2) Lett
- Bilateral
- Central (5) Anterior
- Posterio (7) Superior
- Interior (9) Unknown
- Whole region

3

S

Q

700



1994
John to Ceffin Become
secondarily she has noted some chronic laryngitis. She has been on antibiotics as well as steroidal inhalers. Frankly her ENT exam was fairly benign although she did have some small nodularity of the anterior one-third of the membranous cord. I started her on a <u>Vanceril inhaler</u> , told her to watch vocal abuse and she is going to recheck in a few months. Certainly if problems persist, she may be a candidate for a CO <sub>2</sub> laser excision of the vocal cord nodules.
Letter - Dr. Marie
1994
is still having some troubles with hoarseness. She brought in some sheets about the toxic effects of inhalation of air bag things. She still has some nodularity of her anterior cord. I recommended that we might want to consider a direct exam which would include an esophagoscopy and microlaryngoscopy and possible vocal cord stripping. She is going to think things over and get back to us at some point down the road.  Letter - Dr.
194 mas Tulw/cod making her Dick to Ner stomach Still has bad some throat t headache/Calledin Vicoclin #30 104-lett prin per W.
X Surgery 194 mc Microlary pocopy with Cor laser excision of rocal cold modules and
X Surgery 194 mc Microlanygocopy with Cor laser excision of rocal cold modules and rigid esciphagocopy. per Dr.

## OTOLOGY, RHINOLOGY, AND LARYNGOLOGY HEAD AND NECK SURGERY FACIAL PLASTIC AND RECONSTRUCTIVE SURGERY

, INC.

M.D.





Dear

This is just a follow-up note in regard to Ms. who is status post microlaryngoscopy with CO, laser excision of the vocal cord nodules. Her voice is markedly better. There is no evidence of persistent nodularity. I told her I could not be dogmatic as to whether the nodularity was caused by the air bag situation.

She is going to recheck in a month or so and I'll keep you posted as to any pertinent developments.

With warm regards as always,

, M.D.

## OTOLOGY, RHINOLOGY, AND LARYNGOLOGY HEAD AND NECK SURGERY FACIAL PLASTIC AND RECONSTRUCTIVE SURGERY

M.D.

M.D.

M.D.

M.D.

M.D.

RE:

DOB:

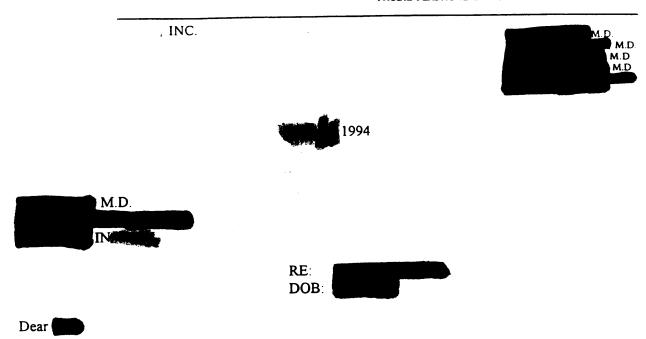
This is just a follow-up note in regard to Ms. who, as you may recall, is still having some difficulties with hoarseness and has bilateral vocal cord nodules. Given the chronicity of the situation, we may wish to consider CO<sub>2</sub> laser excision of the nodules and possible esophagoscopy. She is going to think things over but we will likely schedule this at some point in the not-too-distant future.

I'll keep you posted as to any pertinent developments.

Dear

With warm regards as always,

, M.D.



Thanks so much for allowing me to see Ms. who, as you may recall, is a delightful 31-year-old lady who was involved in a motor vehicle accident where the air bag ruptured and she inhaled some of the chemicals. Secondarily she has noted some chronic laryngitis that has been refractile to antibiotic treatment as well as nasal steroids.

On exam, it did appear as if she had a little bit of nodularity on the anterior one-third of her membranous cord. I told her to maintain a good level of hydration and humidification, started her on a Vanceril inhaler and recommended that we recheck her in a couple of months. If problems persist, I suppose she may be a candidate for microlaryngoscopy with CO<sub>2</sub> laser excision of the nodularity, but hopefully that won't need to be done.

I'll keep you posted as to any pertinent developments.

With warm regards as always,

SURGEON:	M.D.
ASSISTANT:	
ANESTHESTA ·	

ANESTHESTOLOGIST:

PREOPERATIVE DIAGNOSIS: BILATERAL VOCAL CORD NODULES.

POSTOPERATIVE DIAGNOSIS: SAME.

OPERATIVE PROCEDURE: MICROLARYINGOSCOPY WITH CARBON DIOXIDE LASER EXCISION OF THE

VOCAL CORD NODULES FOLLOWING A LEFT VOCAL CORD BIOPSY AS

WELL AS RIGID ESOPHAGOSCOPY.

#### INDICATIONS:

SURGICAL PREPARATION, FINDINGS & TECHNIQUE:

FINDINGS: The patient was found to have bilateral firm vocal cord nodules at the juncture of the anterior-third and posterior two-thirds of the membranous vocal cord. Esophagoscopy was benign.

PROCEDURE: The patient was taken to the operating room, and following a general endotracheal anesthetic by Dr. with a red rubber wrapped endotracheal tube, the patient was placed in the supine position. A tooth guard was then applied, and saline-soaked eye pads, as well as saline-soaked towels, were applied around the patient's head and neck. A Dedo suction laryngoscope was then passed down to the patient's endolarynx following application of the tooth guard, and the endolarynx was thoroughly examined with the Zeiss microscope and 400 focal length lens. The pathology is as previously described were vocal cord nodules of the anterior-third of the membranous cord. Bilateral nodule of the left true vocal cord was then excised with a cup forceps, and the carbon dioxide laser placed on 2 watts continuous and was used to vaporize the base of this area, and the right vocal cord nodule was vaporized in a similar fashion. Prior to the use of the carbon dioxide laser, a saline-soaked Cottonoid was placed subglottically; this Cottonoid was then removed; the laryngoscope was removed. The Jesburg esophagoscope was passed down through the cricopharyngeus down to the level of the gastroesophageal junction; the esophageal exam was felt to be normal, and the patient was then awakened and taken to the

post-anesthesia patient's tooth	room in	satisfactory	condition	following	removal of	the
Page 1						

OPERATIVE REPORT

MR#:

Report

HD.

PATIENT INFORMATION

NAME

AGE 31 YRS SEX

FEMALE

Copy to:

Pt. Phone #:

		•		
Collected: 494	0845 Ordered:	94 0805	Reported: 494	2354
COMPLETE BLOOD COUNT			[4.50-11.00]	K/uL
WBC		2.93 L		M/uL
RBC	4.00		[3.70-5.40]	
HCB	12.4		[11.4-15.4]	g/dL
нст	35 . 2		[35.0-47.0]	X
MCV	88.1		[81.0-100.0]	f1
MCH	<b>3</b> 0.9		[27.0-34.0]	Pg
MCHC	35.1		[30.0-36.0]	g/dL
PLT	185		[130-470]	K/uL
RDW	13.0		[11.5-14.5]	X
Polys	44		[36-66]	X
Band	11		C5 <b>-</b> 133	X
Lymphocyte	40		[23-44]	X X X X X
Honocyte	3		[3-9]	×
Eosinophil	1		[1-3]	X
Basophil	1		CO-13	X
Diff Sample	100 CELL			
Plt Sufficiency	NL			
RBC Morphology	NL			
COAGULATION, ROUTINE				
APTT	29.6		[0.0-34.0]	SEC
PT Patient	12.0		[11.0-14.0]	SEC
	1.0 f		200000000000000000000000000000000000000	
INR Value	1.0 1			
NR Value				

\*Suggested Therapeutic Ranges:

INR	CONDITIONS
2.0 - 3.0	Venous thrombosis, pulmonary embolos, tissue heart valves, acute M.I., atrial fibrillation, valvular heart disease,
2.5 - 3.5	recurrent systemic embolism. Mechanical prosthetic valve.

Note: Recent data suggests that the previously recommended therapeutic ranges of 3.0 to 4.5 for recurrent embolism and mechanical prosthetic valve can be reduced in most cases to the lower ranges outlined above.

Footnotes L = Low

Name:

Location: CC Pt. Type: PREADMIT/HOSP

End of Report

Courier Code: 1

Lc- SDS Courier Code: P. ent Name:

Med. Rec.#: Pt. Acct#: Acc. No.:

Age: 31 YRS Sex: F

# GURGIOALPATHOLOGY CONSULTATION

Date:

Accession No.:

SPECIMEN:

Left true vocal cord.

CLINICAL NOTES:

Pre-operative diagnosis: Esophageal nodules.

Post-operative diagnosis:

GROSS:

The specimen is received in formalin in a container labeled with the patient's name. The specimen consists of a minute gray-white portion of tissue, which may not survive processing. ET in A.

MICROSCOPIC:

Micro exam shows a strip of thin atrophic but benign squamous mucosa. This overlies an area of myxoid degeneration of the submucosal supporting collagenous connective tissue.

#### **DIAGNOSIS:**

Left true vocal cord: Benign vocal cord nodule (chorditis nodosa).

CODE:

50:

M.D.

REH (Electronic Signature)

\*

FINAL REPORT Adm. Doctor: Adm. Date: 94 Ord. Doctor:

Pt. Name: **Med.** Rec.#:

Reported: 94 1718 Consult. Doctor(s): .

Age: 31 YRS Sex: F DOB:

Page:

Patient Name:
93 HEMOCCUT NEG. © X3 OP. Catangarte PN
Temp: 98.6 R: 16 Mucus X5 d.
5. Began Thrus = 51 + languages: Now & migalgeas
1 Jack Cumpay - We Divided . 100
O. Mis vl. Mayny-red & exudates nech-soudes  Heart RR 5 m lungs- CAA  Ca MMC a lungs- CAA
Alf OUM-Aword Saotid Xlod Not Ac t-titop 944 pm PIFITIS
-93 Ceptin 250 B1D × 10 d Called to V.O. Du

Hick muces, blood tenged wag discharge. In the Surface of the See plup. in H.

CXR PANLAT Ordered . Pt notified

NAME	S M	W D INSURANCE	
ADDRESS		PHONES (H)	(0)
OCCUPATION SELF-EN	APLOYED - SALES	DATE OF BIRTH	AGE 30
TUBERCULOSIS  STROKE MATERNAL F-HOT  MIGRAINE SELF  MENTAL ILLNESS MATER- MATER-	EPILEPSY  MCF DIABETES FATHER, IM.	WARTHRITIS FATHER,	VALUE AND
H A D D D D D D D D D D D D D D D D D D		Juni (	<b>E</b> 70,000
APPROXIMATE DATE OF LAST INJECTION SMALL POX TYPHOID MEASLES MUMPS RUBELLA		M E LIST	ALLER UG LES
MEDICAL HISTORY Mark C for c	current problems. Tick 🗵 box and ind	dicate age when you had any of tollo	owing symptoms or diseases.
MAIN PROBLEMS (1) EXHAL	ACTED THANK TO SLEEP (2) D	)१२२५	(3) MANSEOUS
Decreased Hearing   Hamilton   Hamilton	Leg Pain when walking  Varicose Veins / Phlebitis  Loss of Appetite - recent charfs  Difficulty Swallowing  Indigestion or Heartburn  Persistant Nausea / Vomiting  Peptic Ulcers  Abdominal Pain - chronic  Change in Bowel Habits - recent  Diarrhea 6 Constipation  Diverticulosis  Bloody or Tarry Stools  Hemorrhoids  Gall Bladder Trouble  Jaundice / Hepatitis  Hernia  Urine Infections - frequent  Painful Urination  Blood in Urine  Overnight Urination - More than 2  Control in Urination  Decrease in Force of Urination  Kidney Stones  Veneraal Disease  Urethral Discharge	Chronic Fatigue Weight Loss - recent Anemia Bruise easily Cancer Diabetes Thyroid Disease Convulsions / Seizures Stroke Tremor / Hands Shaking Muscle Weakness Numbness / Tingling Sensation Headaches - frequent Arthritis / Rheumatism Back Pain - recurrent Bone Fracture / Joint Injury Gout Foot Pain Cold Numb Rashes Hives Psoriasis Eczema Sleeping - difficulty Nervousness Depression Memory Loss Moodiness - excessive Phobias Mental Illness	Dept of Flow  23-27 Length of Cycle  Pain / Bleeding After Sex 3(Ld\$) and  No. of Pregnancies  No. of Live Births  No. of Miscarriages  Birth Control Method Condons / Phythad  B. C. Pill (name)  Flushing / Menopause
SYNOPSIS			
	CRO-K° um Chloride Extended-	/ICRO-K° (Potassium Chloride Extend	

SUPPLEMENTS

Release Capsules, USP) 600 mg **8 mEq K** 

750 mg **10 mEq K** 



### RADIOLOGY REPORT

DFOB:

DR.

MR#

CLINICAL HISTORY:

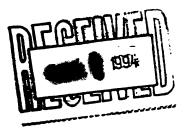
# PA AND LATERAL CHEST:

The heart and mediastinum are normal. The lung fields and pleural spaces are clear. The bony thorax is intact.

# IMPRESSION:

Normal chest.





, M.D.
DD: 94/DT: 94/94

RE:

Dear

I recently had the pleasure of seeing a patient of yours by the name of

Mrs. is a pleasant 31 year old white female whom I did see on 1994 in reference to her chief complaint of recurrent laryngitis.

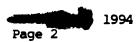
The patient currently says she is actually doing somewhat better and at this point denied much in the way of pulmonary symptomatology. She currently states that she did not have any shortness of breath or dyspnea on exertion, no significant cough, sputum production, hemoptysis or wheezing. She is a nonsmoker and currently on no regular medications.

She does state that she began with an upper respiratory tract infection in approximately and the of 1993 and was treated with several courses of antibiotics but this did not totally clear some of her symptomatology at that time which did include some cough, some chest soreness and then the hoarseness. She even, while on vacation in Florida in December, did see a physician in Florida and was given other courses of antibiotics and some type of nose spray.

Over the last month, she has not had much in the way of pulmonary symptomatology but her persistent laryngitis has continued to be a problem. Her other past medical history is very unremarkable and I'm sure well known to you. She is a nonsmoker.

On physical examination today, her vital signs were stable and she was in no acute distress. I found no significant abnormalities and indeed she had no adenopathy and her lung fields were clear to auscultation and percussion. A current chest x-ray I felt also was essentially within normal limits.

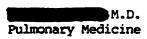
at this point, I do not think she has some underlying pulmonary pathology accounting for her current symptomatology. She did make me aware of the fact that she was involved in a motor vehicle accident on October 1993 and the airbag did deploy itself and apparently had a hole in it along the some powder sprayed throughout the vehicle at that time. She felt she did inhale some powder and she has had some of her current symptomatology for the party throughout.



I, however, am not certain that I could relate that episode to her current situation.

At this point I did not think complete pulmonary function studies, bronchoscopies or other delving into her pulmonary situation would be very efficacious. I told her that ENT consultation may be worthwhile but I will leave that to your final discretion. Certainly if she gets worsening pulmonary symptomatology at any point, I'd be happy to re-evaluate. If you have other specific questions concerning her pulmonary status, please feel free to give me a call at anytime. Thank you for consulting me.

Sincerely,



-

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From 19:54:50 1994
To:
Subject:
Date: 19:54:50 1994

phoned at 3:00 p.m. c/o dysuria and a temperature of 100.5 for the past 3 days. She denies hematuria, back pain, nausea, vomiting or chills. She denies any known medication allergies and has not been on any antibiotics recently. I phoned in scripts to for (generic) Bactrim DS (1 po bid x 10d) and Pyridium (200 mg po tid x 2d) and asked to go to the lab at to submit a urine specimen before filling the scripts.

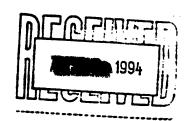
I then got another call from at 7:45 p.m. requesting that I phone the scripts instead to as a had closed before could make it over there. I phoned another set of scripts to and told to push the fluids.

94 Notified 8 49 lats.

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\* = Abnormal

Location:

Pt. Type: HOSP OUTPATIENT

End of Report

Courier Code:

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LACERATION CORE SPRAINS TETANUS INJURIES	I HEMBY ACKNOWLEDGE RECEIPT OF AND UN		H BISCHARGE	ADMITTED

CHIEF COMPLAINT: Retromanubrial chest pain.

HISTORY OF PRESENT ILLNESS: In the patient had an air bag of a car apparently explode and she inhaled some of the dust. Since that time, beginning four days after that, she has had intermittent coughing, sneezing, "laryngitis." She has had a fever up to 100.5 which began seven days ago and was 99.7 today. Five days ago she was begun on Bactrim for a urinary tract infection and still has some burning with that but no dysuria or frequency. She denies any nausea, vomiting, diarrhea, abdominal pain in the last several days but over the last month had several brief episodes of nausea, vomiting and diarrhea. She has had a diffuse headache off and on for one month. She notes that the pain tonight is worsened with cough and with deep breaths. It began this evening and it was the first time she has experienced that.

#### PHYSICAL EXAMINATION:

CHEST: Clear to auscultation.

HEART: Regular without gallop, murmur or rub.

ABDOMEN: Soft, flat and nontender without organomegaly or

mass palpable. Bowel sounds are normal.

VITAL SIGNS: Temperature 98.8. Respiratory rate 16.

GENERAL: The patient does not appear in any respiratory

distress. She appears moderately anxious.

HEENT: Pharynx is minimally injected with tiny tonsils

with no exudate. Tympanic membranes are without

inflammation.

CHEST: There is mild tenderness over the manubrium but

none of the rest of the anterior chest.

NECK: There is mild tenderness over the anterior neck

but with no masses or lymphadenopathy palpable.

LABORATORY PATA: Her bi-oximeter is 100% on room air.

INSTRUCTIONS: Call Dr. Gargle.

cc: M.D.

STATEMENT: "I authorize my name to be automatically affixed to

this report as signifying that I dictated this report."

M.D.

SecrePhone

DD: 94 DT: 94 #

Page 1 of 1

EMERGENCY ROOM RECORD

MR#:

ADM DATE: 94

ADDENDUM: At the time of discharge the patient enlarged upon her history telling me that today, earlier in the afternoon, she had swallowed a couple of pills and felt that they did not pass beyond the midsternal area. She says the pain in the chest, manubrial area, is also worse when she swallows.

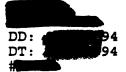
It is possible, therefore, that she has some irritation of the esophagus or even potentially a pill that is lodged in the esophagus.

For further instructions I have instructed her to go home and eat well tonight. Certainly let Dr. know tomorrow if she is not feeling well. She may need both bronchoscopy and laryngoscopy or esophagoscopy in the next day or two.

cc: M.D.

STATEMENT: "I authorize my name to be automatically affixed to this report as signifying that I dictated this report."

M.D.



Page 1 of 1

EMERGENCY ROOM RECORD

MR#:

ADM DATE: 94

Patient Name:
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MICROENCAPSULATED TO BE GI GENTLE

Patient Name:
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M.D.

RE: DOB:

#### Dear

Thanks so much for allowing me to see Ms. who, as you may recall, is a delightful 31-year-old lady who was involved in a motor vehicle accident where the air bag ruptured and she inhaled some of the chemicals. Secondarily she has noted some chronic laryngitis that has been refractile to antibiotic treatment as well as nasal steroids.

On exam, it did appear as if she had a little bit of nodularity on the anterior one-third of her membranous cord. I told her to maintain a good level of hydration and humidification, started her on a Vanceril inhaler and recommended that we recheck her in a couple of months. If problems persist, I suppose she may be a candidate for microlaryngoscopy with CO<sub>2</sub> laser excision of the nodularity, but hopefully that won't need to be done.

I'll keep you posted as to any pertinent developments.

With warm regards as always,

, M.D.

