

Your Greatest Risk



Operating a motor vehicle
Exposure – Frequency – Severity
“Standard of Care”

The Behavior Change Model

- Pre-contemplation Stage
- Contemplative Stage
- Determination Stage
- Action Stage
- Maintenance Stage

Resume of Qualifications



- 24 + years with the RCMP
- Over 18 years as a Technical Investigator
- 14 years as a Collision Reconstructionist
- NCO i/c Kamloops Rural, CPVS, Community Policing
- 1 1/2 years as a Commercial Vehicle Loss Prevention Representative for ICBC
- Presently the President and CEO of Advantage Fleet Services which is a proactive Loss Prevention/Risk Management Consulting Firm.

Pre-Contemplation

- Habit problem is not recognized
- Unconcerned about the problem
- Denial
- Uninformed – no personal convincing reason for change has been presented as of yet...
- AWARENESS

Why is driving your greatest risk?

- Lack of Training
- Exposure – The amount we use our vehicles.
- Severity – The potential to be injured or killed is high in a motor vehicle collision
- Frequency – This is tied to exposure but has factors that we as drivers control
- “The Startled Driver”

TRAINING

- Initial training and experience does not involve a “standard”. Often taught by a supposed experienced driver.
- Unconcerned about the problem “accident”
- Denial – It’s not be but everyone else
- Uninformed – Why CHANGE

EXPOSURE

- The amount of time spent driving
- Does it involve work
- Various conditions
- Police related driving duties
- Commercial Vehicles
- Different surfaces

SEVERITY

- Type of collision
- Potential Involvement with Commercial Vehicles
- Kinetic Energy
- Grades
- Friction values

Contemplative

- Convincing, personal and timely information is presented (not advice)
- Being afforded data which is very relevant and convincing
- Information that is specifically catered to the student
- Gain an accurate and unbiased picture of your behavioral problem – assessment

.....

- **Do you operate a vehicle as part of your Job?**

Job vs. Profession

- | | |
|---|--|
| ▪ A piece of work | ▪ An occupation requiring special education and training |
| ▪ A definite piece of work undertaken for a fixed price | ▪ The people engaged in such an occupation |
| ▪ Anything a person has to do | ▪ Making a business or trade of something others do for pleasure |
| ▪ Employment | |

Skill Requirements for a Professional Driver

- Legal
- General
- Company
- Knowledge
- **ATTITUDE**

Legal

- Age
- Licensing
- Rules of the road
- Endorsements
- Physical
- Safe operation – driving record
- Perform tasks relative to job requirements

General

- Knowledge of the vehicle to be used
- Ability to drive safely
- Paper work

Company

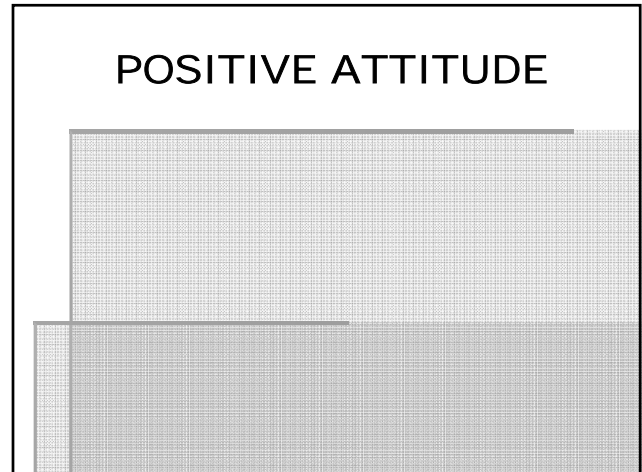
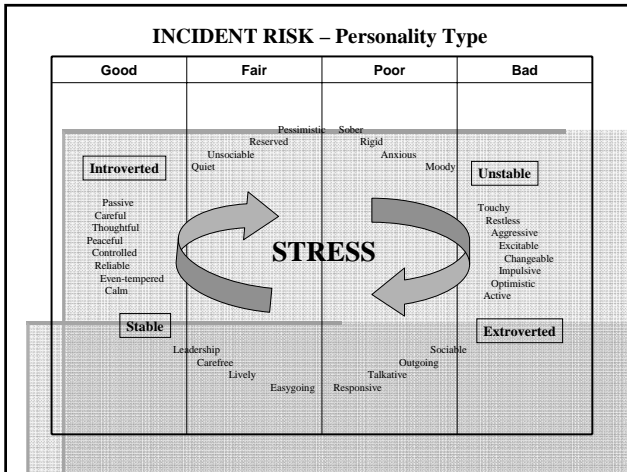
- Hours of work
- Basic work rules - Policy and Procedures
- Safety rules
- Inspection and maintenance
- Public and customer relations

Knowledge

- Driving abilities
- Experience
- Equipment
- Company standards

ATTITUDE

- Attitude is really what makes a professional driver
- Cooperative
- Loyalty
- Concern for safety
- Honesty
- Dependability



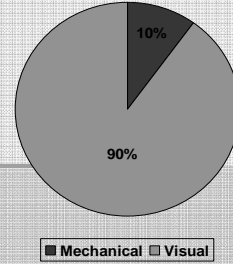
- POSITIVE ATTITUDE**
Determination
- Modify expectations; establish a goal that is reasonable – takes ownership
 - Harm reduction model (Netherlands, Australia and the UK): any movement toward bettering yourself – self improvement, whether drastic or minor modification is positive
 - “It’s not some of us all the time but all of us some of the time”

How do Motor Vehicle Incidents happen?

The Startled Driver

- Most serious control problems occur due to sudden inputs of steering and/or brakes resulting from the driver being **surprised**
- **Surprise** occurs due to a failure of the driver to anticipate changes
- Failure to anticipate is normally caused by incorrect **eye** placement. The sooner a driver sees and decides the less control input is required

What is driving?



Leading Causes of Death

RANK	Cause and Number of Deaths												Years of Life Lost
	Infants Under 1	Toddlers 1-3	Young Children 4-7	Children 8-15	Youth 16-20	Young Adults 21-24	Other Adults			Elderly 65+	All Ages		
							25-34	35-44	45-64				
1	Perinatal Period 9,724	Congenital Anomalies 68	MV Traffic Crashes 533	MV Traffic Crashes 1,549	MV Traffic Crashes 5,273	MV Traffic Crashes 4,156	MV Traffic Crashes 5,759	Malignant Neoplasms 1,569	Malignant Neoplasms 1,275	Heart Disease 82,729	Heart Disease 70,142	Malignant Neoplasms 22% (8,914,931)	
2	Congenital Anomalies 5,513	MV Traffic Crashes 421	Malignant Neoplasms 400	Malignant Neoplasms 629	Homicide 2,414	Homicide 2,738	Homicide 5,204	Heart Disease 13,328	Heart Disease 95,889	Malignant Neoplasms 390,214	Malignant Neoplasms 553,798	Heart Disease 22% (8,110,571)	
3	Heart Disease 479	Accidental Drowning 383	Exposure to Smoke/Fire 178	Suicide 447	Suicide 1,879	Suicide 1,924	Suicide 5,070	MV Traffic Crashes 6,891	Stroke 15,518	Stroke 144,486	Stroke 163,533	MV Traffic Crashes 5% (1,700,952)	

SPEED

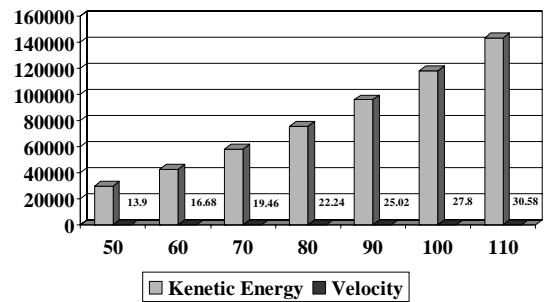
What is SPEED?
Time & Distance

Kilometers per hour (Speed)
Meters per second (Velocity)

Formula for KENETIC ENERGY

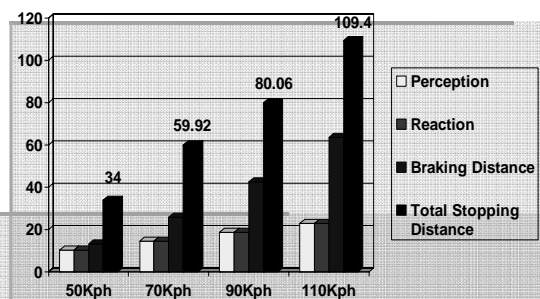
$$Ke = \frac{1}{2} MxV^2$$

KENETIC ENERGY



What happens when there is no opportunity for the energy to be dissipated through the brakes or tires?

Stopping Distance



Action

- Barriers removed, tap into existing strength
- Discovery, revived interests, new activities, new behavior
- Removal of the addictive auto-pilot

- To control a vehicle, rolling contact between tires and the road surface must be maintained
- A driver can influence the movement of a vehicle only three ways
 - Steering
 - Accelerating
 - Braking
- How a driver inputs steering, acceleration or braking will determine whether driving is an **ACT** or an **ART**

Steering

- Turning radius in relation to speed
- Traction – side slip
- Centre of mass
- Stability base
- Out and In track
- Push pull steering
- Vehicle position

Acceleration

- Directly connected to horse power
- Traction element
- Speed kills
- Kinetic Energy
- Perception/Reaction factors

Braking

- Coefficient of friction
- Road and weather conditions
- Weight and speed factors
- Grades
- ABS braking system

ACT vs. ART

- The **ACT** of driving is relatively simple and most people can perform the task unconsciously
- The **ART** of driving is also relatively simple, but is accomplished through the drivers ability to concentrate on the task at hand and make conscious decisions

Maintenance

- Practice living less harmful lifestyle until it becomes automatic
- Relapse, slips and setbacks are part of learning
- Integral part mistakes teach us, we learn more from our ***others*** mistakes
- Unfortunately our youth often only live to make that first mistake

SEAT BELTS



- 6 passengers
- Pressurized space suits
- Oxygen enriched environment
- 4 point harness
- 14 g's
- 2½ minute ride

- One passenger
- New baby boy
- Impaired
- No seat belt
- 200 g's
- millisecond

Helpful Hints

- Drive as an **Art** not an Act
- Practice knowing **where** to look, **when** to look and **what** to look for
- The most important item on your vehicle are your tires
- Look where you want to go
- Speed kills
- Stable platform concept
- Seatbelts save lives and reduce injuries



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**Thank you for your time.
 Any QUESTIONS?**