

Dentistry's Role in Abuse Recognition & Domestic Violence Prevention

MAIN GOAL

- Unique Knowledge of "Dentistry"
- Use it to RECOGNIZE key Signs
- SHARE your knowledge with Others
- Dentistry's Mandate

Forensic DHCP's Scope of Practice

American Board of Forensic Odontology

1) Broad background in General Dentistry

- Head & Neck Anatomy
- Radiographic Anatomy
- Oral pathology
- Dental Restorative Procedures

2) Understand roles of the

- Pathologist
- Police
- Children's Aid Society (CAS)

Forensic DHCP's Scope of Practice

American Board of Forensic Odontology

3. Appreciate Constraints;

4. Need for exact details in dental recordkeeping & working knowledge in legal aspects of exactness in forensic dentistry;

5. General Protocol in Court Room;

6. Attention to Details

Role of the Forensic DHCP

1. Dental Identification
2. Mass Disaster Response
3. Child (Victim) Abuse – Recognition, Reporting, Intervention (Prevention)
4. Bite Mark & Patterned Injury Analysis
5. Civil Litigation (Standard of Care, Personal Injury, Fraud, Malpractice)
6. Assist Forensic Team gather dental records to assist victims / families

Survivability of Dental Evidence

- Teeth are calcified structures
resist changes associated with: water , dryness, decomposition, cold, heat
- Dental Restorations are stable
 - resistant to environmental effects
 - resistant to temperature all the way up to cremation

Survivability of Dental Evidence

Oral Structures are in a protected environment of:

- soft tissues keep temperatures lower
- tongue, cheeks, buccal fat pad
- encased in Alveolar Bone

Teeth and human dentitions have uniqueness in their patterns & shapes:

- Buccal – Lingual Displaced
- Rotated Teeth
- Decayed & Missing
- Environmental “Chipping”, Wear, etc.

Why Dentistry Works in Forensics

- Virtually infinite number of comparison points:
 - each tooth has 5 surfaces
 - Adult Dentition has 32 teeth =
 - 160 surfaces for each adult mouth
 - 120 for children over 6 years of age
 - 100 for children under 5 years of age

Now Add these Dental Alterations

- Dental Restorations / Prosthesis
- Missing / Unerupted Teeth
- Tooth Type and Morphology
- Pulp Chamber and Root Canal Pathology
- Root Shape and Bone Pathology
- Third Molar Formation
- Tooth Position
- Fixed / Orthodontic Appliances
- Periapical Pathology

Why Dentistry Works in Forensics

- Virtually infinite number of comparison points because each tooth has 16 possible ways to restore it, therefore:
 - 32 teeth x 5 surfaces x 16 ways to restore = limitless variable factors
 - over a trillion possible combinations for one dentition type
 - Uniqueness of occlusion & dental arch alter tooth position & rotations

IMPORTANT Dental Record Base

- High % of people visit dental offices often
- Dental Records are routinely generated
- Dental Records are retained for long periods of time (Canada 10 years)
- Treatment is routinely recorded and graphically charted (Digitized)
- Radiographs are taken nearly 100% of time

Forensic Modalities

- Anthropology
- Ballistics
- Computers
- Criminalistics
- DNA
- Engineering
- Medical-Legal
- Odontology
- Pathology
- Photography
- Psychology
- Toxicology
- Trace Evidence
- ... Many others

“This is a Crisis”

“Intimate partner violence represents one-quarter of all reported violent crime in Canada, with more than 90,000 victims annually.”

Hamilton Spectator – January 20, 2018

“This is a Crisis”

“In Hamilton, police respond to about 20 domestic violence calls each day – and it is an underreported crime”

Hamilton Spectator – January 20, 2018

“This is a Crisis”

“Women are five times more likely to be killed by an intimate partner than are men.”

Hamilton Spectator – January 20, 2018

“This is a Crisis”

“Women age 25 to 34 are at the most risk.”

Hamilton Spectator – January 20, 2018

Children’s Aid Society (Peel)

April 2016 – May 2017

- 13,003 calls from: citizens, health care professionals, teachers & police
(1.084 / month – 36 / day)
- Investigated 7,383 cases
(615 / month – 20 / day)
- Served 10,443 families
(870 / month – 29 / day)

Dental TEAM must work with:

- ▶ Children’s Aid Society
- ▶ Police Services
- ▶ Medical Professionals
- ▶ Hospital Emergency Departments
- ▶ Paramedics
- ▶ Teachers
- ▶ Coroner’s Office
- ▶ with other dental offices!

DHCPs must educate the TEAM on what dentistry can bring to the forensic table:

- 1. Age Determination**
- 2. DNA: Human Heredity**
- 3. Child Abuse / Neglect**
- 4. Spousal / Adult Abuse & Domestic Violence**
- 5. Senior Abuse**

BY:

- 1) Learning about violence issues; (Being HERE today!)**
- 2) Recognizing suspected signs & symptoms**
- 3) Documenting evidence & records**
- 4) How to Refer Patients**
- 5) Providing Resources to patients**

Canadian Statistics

- ▶ Domestic Violence is about 26% of all police reported violent crime;**
- ▶ Police report 46% victims have physical injuries = Abuse**
- ▶ 84% of abusers hit or bite**
- ▶ only 16% use other weapons**

Statistics Canada (2008 – 2011)

What is Domestic Violence

Abuse which happens in a relationship & includes aggression such as:

What is Domestic Violence

Physical:

Hits Kicks Punches Slaps Bites

Emotional:

Control by saying or doing things that make you feel down about yourself

Sexual: Sexual acts one does not want, includes rape

MYTH

We have to stay together

--

because of:

- kids**
- finances**
- anything at all!**

REALITY CHECK

Women are more likely to be killed by abuser when they are pregnant – along with the child(ren)

Awareness that abuse is extensive and occurs **HERE** is an important 1st step

KEY SUBJECTIVE Indicators of Abuse

- Extremely Fearful
- Very Agitated
- Overly quiet
- Overly passive
- Overly withdrawn
- Diminished Self-Esteem
- Depression
- Isolation
- Unkempt Appearance
- Broken Appointment

No single indicator can tell if someone is abused ... but should alert you

BUT ... Common Barriers Exist for DHCPs

- Time Constraints: 82%
- Lacked Knowledge, Education or Training: 68%
- Lack Follow-up Resources: 63%
- Not My Role to screen: 46% (Mandated)

USA - Department of Health & Human

What is Abuse?

- Physical
- Emotional
- Developmental
- Sexual
- Neglect
- Educational
- Medical
- Dental
- Nutritional

**Physical Abuse
is the
most common form
of abuse at about
35%**

American Society of Forensic Science

**YET .. 65%+ occurring
in head and neck areas
& another
24% in the limbs ---
89%+ all easily viewable
in a dental office!**

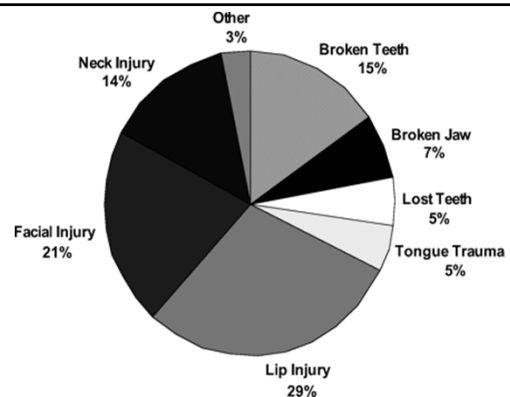
American Society of Forensic Odontology

**KEY DENTAL TRAUMA
Indicators of Abuse**

- Fractured Teeth
- Oral Lesions or Cuts
- Jaw or Facial Fractures
- Ear / Nose Damage
- History? Injury?
- Bruises on Face, Neck, Ear, etc.
- Unexplained burns or "trauma"
- Delay or avoid appointments
- Fear of Guardian in treatment room

**Recognition
is
Key**

**WHAT TYPE OF
ORAL - DENTAL
INJURY IS
WORTHY OF
SUSPICION?**



Journal of Dental Education, Vol. 73, No 4, Pgs 490 - 498

Types of Soft Tissue Injury?

- 1) Any “Minor” or Unsuspecting Injury (But examine closely!)
 - Petechial Hemorrhage
 - Rash
 - Blister

Did you Know?

50% of all
Sexually Transmitted Diseases (STDs)
occur in people
25 years of age or younger?

McMaster University – Student Wellness Centre
Hamilton, Ontario

Did You Know?

STDs occur via transfer of bodily fluids such as:

- Sperm
- Blood
 - Saliva
 - Vaginal Discharge
 - Skin to Skin Contact..

during sexual activities

SEXUALLY TRANSMITTED INFECTIONS & DENTISTRY

“Changes in sexual behaviours over the last few decades, such as those related to the age of first sexual encounters, number of sexual partners or oral-genital contact” has changed

Dr. Joel B. Epstein
CDA *Essentials*, Vol 1, Issue 6

TYPE of INJURY

- 1) Petechial Hemorrhage
- 2) Contusion (Ecchymosis, Bruise)
- 3) Abrasions
- 4) Laceration
- 5) Incision
- 6) Avulsion
- 7) Artefact

Sports Dentistry



•
**Accident ?
Or
Abuse ?**

•
**Look for
Patterned Injuries
ELSEWHERE**
→↔→↕ΔΣ≠◇☀|||▲♠

•
Rule #1
**If the History
doesn't match
Injury pattern....
Look for Differences**

•
Rule #2
**Pay Attention to the
“Minor” details...**

Rule #3

Frequency of Abuse ↑ *Increases with time*

&

Severity of Abuse

32%
**Canadian Adults
experienced
child abuse as
children ...**
Canadian Medical Journal – April 2014

•
**Men (31%)
are more likely
to be physically
abused than
women (21%)**

Canadian Medical Journal – April 2014

•
**> 14 - Women (21%)
are more likely
to experience sexual
abuse
than men (14%)**

Canadian Medical Journal – April 2014

•
**There may be items
that are not
checked because
HCPs simply do not
know that they exist**

•
**Because -- most
(D) -- HCPs
were
never taught
that this exists**

**YET .. 65%+ occurring
in head and neck areas
& another
24% in the limbs ---
89+% all easily viewable
*in a dental office!***

American Society of Forensic Odontology

**YET ---
Mandatory
Reporting
Responsibilities
42 Colleges ..
EXPECT ..**

**RCDSO & CDHO expect
all DHCPs to be aware
of & comply with their
legal, professional and
ethical reporting
obligations**

**It is our legal duty to make a
report to a Children's Aid
Society (CAS) when we
have reasonable grounds to
suspect that a child
is or may be
in need of protection**

Child & Family Services Act (Ontario)

**Dental professionals
who fail to report
their suspicions
are committing
professional misconduct
and are
guilty of an offense
punishable by fine**

Key Points:

- **NOT** obligated to prove abuse or neglect
- report suspicions immediately
- **DO NOT INVESTIGATE**

**“Yes, You Can”
Professionals can
disclose information to
protect a child from
potential harm**

RCDSO

**Ontario law does permit
the disclosure of
important (privacy)
information
by Official Warrant**

(S.487.092)

... CAS case workers testified about frustration when trying to get records from 3rd parties

Lack of Recognition is our Society's & HCP's failure to victims / patients ... but ..

Is it also Dental Faculties failure to dental students?

Dental Students "are not educated on the warning signs and the common risk factors for domestic violence and murder"

Jocelyn Coupal – Domestic Violence Consultant
Vancouver, B.C.

"The majority of Domestic Violence (DV) victims were not asked about their injuries by a dental professional when signs were apparent"

Journal of Dental Education – Vol. 73 No. 4 - April 2009

There may be items that are not checked because we simply were not taught to recognize it ..

●

.. BUT ALSO ..
because we do not
ASK THE QUESTION

Penicillin Aspirin Anaesthetic (Freezing) Codeine Other

Have you EVER had or experienced: (Check if "yes")

<input type="checkbox"/> Drug Abuse	<input type="checkbox"/> Alcohol Abuse	<input type="checkbox"/> Heart Trouble
<input type="checkbox"/> Kidney Problems	<input type="checkbox"/> Heart Valves	<input type="checkbox"/> Hepatitis
<input type="checkbox"/> By Pass Surgery	<input type="checkbox"/> Liver Problems	<input type="checkbox"/> Blood Disorders
<input type="checkbox"/> "AIDS" OR "HIV"	<input type="checkbox"/> Rheumatic Fever	<input type="checkbox"/> Diabetes
<input type="checkbox"/> Heart Murmur	<input type="checkbox"/> Ulcers	<input type="checkbox"/> Chest Pains
<input type="checkbox"/> Epilepsy/Convulsions	<input type="checkbox"/> Cancer	<input type="checkbox"/> Asthma
<input type="checkbox"/> Angina	<input type="checkbox"/> Joint Replacement (Hip, Knee)	<input type="checkbox"/> Bronchitis
<input type="checkbox"/> Radiation Treatments	<input type="checkbox"/> Venereal Disease (V.D.)	<input type="checkbox"/> Sinus Problems
<input type="checkbox"/> Circulation Problems	<input type="checkbox"/> Hayfever	<input type="checkbox"/> Eye Surgery
<input type="checkbox"/> Bleeding Problems	<input type="checkbox"/> Thyroid Problems	<input type="checkbox"/> Glandular Disorders
<input type="checkbox"/> Lung Disease	<input type="checkbox"/> Psychiatric care	<input type="checkbox"/> Anemia
<input type="checkbox"/> Arthritis	<input type="checkbox"/> Rheumatism	<input type="checkbox"/> Car Accident Injuries
<input type="checkbox"/> Head/Neck Injuries	<input type="checkbox"/> Pace-Maker	<input type="checkbox"/> Blood Pressure Problems
<input type="checkbox"/> Child Abuse	<input type="checkbox"/> Family/Domestic Violence	<input type="checkbox"/> Spousal/Partner Abuse
<input type="checkbox"/> Alzheimer's	<input type="checkbox"/> Anorexia	<input type="checkbox"/> Bulimia
<input type="checkbox"/> Concussions	<input type="checkbox"/> Chicken Pox	<input type="checkbox"/> Jaw Fractures
<input type="checkbox"/> Osteoporosis	<input type="checkbox"/> Auto Immune Disorders	<input type="checkbox"/> Emphysema
<input type="checkbox"/> Past Hospitalizations	<input type="checkbox"/> Chemotherapy	<input type="checkbox"/> Tuberculosis
<input type="checkbox"/> Prosthetic Joints (knee, hip, etc.)	<input type="checkbox"/> Hepatitis A, B and/or C	<input type="checkbox"/> Ever Been Assaulted
<input type="checkbox"/> Latex, Peanut allergy	<input type="checkbox"/> Endocarditis	<input type="checkbox"/> Increased Stress
<input type="checkbox"/> Additions/Treatments	<input type="checkbox"/> Heart Attack	<input type="checkbox"/> Other _____

Is there anything else we should know?

87% "DV victims want the abuse to be recognized by the dental team & want to receive assistance and/or referrals"

Journal of Dental Education – Vol. 73 No. 4 - April 2009

... want "screening for abuse, as well as DHCPs asking questions about the injuries" (only 4%)

Journal of Dental Education – Vol. 73 No. 4 - April 2009

●

Dental schools "should 1) include didactic information on - not only how to recognize domestic violence victims ..."

Journal of Dental Education – Vol. 73 No. 4 - April 2009

" .. 2) how to conduct an interview

3) provide support once the victim has disclosed the abuse"

Journal of Dental Education – Vol. 73 No. 4 - April 2009

Continuing Educational courses could benefit all dental health practitioners already in practice.

Journal of Dental Education – Vol. 73 No. 4 - April 2009

Concerns on what health-care worker(s) don't know what to look for is gaining public notice

**“Sometimes the real injury is one you can't see”
(Intra-Oral?)**

The Hamilton Spectator – January 2016

“Teaching health-care providers to spot evidence of abuse should be standard curriculum”

The Hamilton Spectator – January 2016

“Identifying instances of child abuse is a difficult area of practice complicated by uncertainty & emotion”

The Hamilton Spectator – January 2016

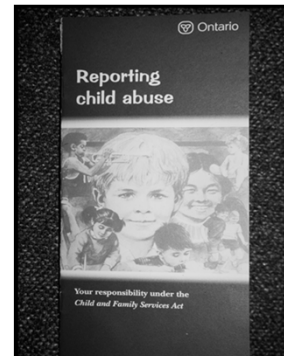
“And yet HCPs are perfectly positioned to identify cases of child abuse if they know what they're looking for.

The Hamilton Spectator – January 2016

●
“They need help, these little kids. Health-care providers can give them that help, if they know what to look for”

The Hamilton Spectator – January 2016

Child & Family Services Act



●
All health care professionals MUST REPORT that a child is in need of protection even when the information is supposed to be confidential or privileged

CFSA – s.72 (4), (6.2)

Professionals Affected

CFSA – s.72 (5)

- Health Care professionals including physicians, nurses, dentists, associated staff, pharmacists, psychologists,
- Teachers & school principals
- Solicitors (Lawyers)
- Social workers & family counsellors
- Priests, Rabbis & other Clergy
- Peace officers
- Coroners
- Day care operators
- Youth & Recreational workers
- All associated staff

Child & Family Services Act

“Child in Need of Protection”

“who is or appears to be suffering from abuse and/or neglect” under 16 years ****

CFSA – s.72 (1)

●
As of January 1st, 2018 up to 18 year-olds in Ontario are eligible to receive protection services from Children’s Aid Societies

**Raising the age of protection
was implemented
in advance of the full change
in legislation as an
amendment to the current
Child and Family Services Act**

The Voice – OACAS – January 2018

NEW

**Child, Youth & Family Services
Act (CYFSA)
passed in June 2017
& scheduled to be
implemented
April 2018**

Child & Family Services Act

**“Anyone who has
reasonable grounds
to suspect .. must
promptly report the
suspicion and
information”**

CFSA – s.72 (3)

Child & Family Services Act

**“It is not necessary for you to
be certain .. to make a report.”
only
“reasonable grounds ..
normal and honest
judgment..”**

Child & Family Services Act

**“Ongoing Duty to Report”
“...if there are
additional grounds
to suspect..”**

CFSA – s. 72 (2)

Child & Family Services Act

**“You must not rely on
anyone else to report on
your behalf”
Can not delegate**

CFSA – s. 72 (3)

FACT

In 2016 – 2017, 98 per cent of the children remained in their family homes

Occasionally we remove them to keep them safe

**Hamilton Spectator – February 10, 2018
Rocco Gizzarelli – Exec Director, CCAS**

Child & Family Services Act

“Professional Responsibility”

“Any professional or official who fails to report a suspicion is liable on conviction to a fine of up to \$1,000 ..”

RCDSO CDHO

CFSA – s. 72 (4), (6.2)

Child & Family Services Act

“Professional Confidentiality”

CFSA s.72(7),(8)

“A professional must report .. even when the information is otherwise confidential or privileged”

Protection from Liability

CFSA s.72(7)

If a civil action is brought against a person who made a report, that person will be protected unless he/she acted maliciously or without reasonable grounds for his/her suspicion

Hamilton Spectator

“... there is no national evidence-based curriculum that teaches health-care providers about child maltreatment across all health sciences disciplines”

January 26, 2016

Hamilton Spectator

“Ontario statistics show .. (HCPs) –

- 77% never received basic courses in abuse recognition;
- 97% do not routinely screen for suspicions of abuse;
... yet ...

Hamilton Spectator

- 92% wish their respective organizations provided courses on abuse recognition”
SO ...

January 26, 2016

Since a professional’s duty to report overrides the provision of any other provincial statute, specifically those provisions that would otherwise prohibit disclosure by the professional ..

CFSA – s. 72 (7), (8)

In today’s world ...
in my opinion ...
Role
of all
Health Care Faculties
is to teach abuse recognition

ASAP!

Mission Statement

To create awareness through recognition for all health-care & law enforcement professionals as well as the general community & public ...

Mission Statement

- ... to prevent abuse on victims of all ages through early
- recognition,
 - documentation and
 - reporting of those who have been abused or neglected.

●
**84% abusers
hit and/or bite
during assaults**

Ontario Police Reports on Violent Crimes

Profile Questions

- 1) Is this a Bite Mark or Patterned injury?
- 2) If a Bite Mark, is it Animal or Human?
- 3) If Human, is it an Adult or Child's bite?

●
**“Multi-Disciplinary”
Approach
is mandatory to
identify and prevent
abuse ...**

●
**“Too often fatal
mistakes missed by
MDs, police and
children's aid end up on
the cold metal autopsy
table..”**

IMPORTANT:

**Multi-Disciplinary team
members must respect
and understand each
discipline's role &
unique expertise**

**INFORMATION FOR THE COLLECTION
OF
DENTAL EVIDENCE FROM A SUSPECT
or PERSON OF INTEREST
FOR USE IN A SEARCH WARRANT**

AND

**THE INTRUSIVENESS TO A PERSON
IN THE OBTAINING OF SUCH EVIDENCE**

(S.487.092)

● Warrant Considerations

Police will NOT limit
their search to the
four walls of an
office

Warrant Considerations

#1 Records

- Written &/or Computer
- Photographs
- Study Models (10 years)
- Specialists reports

Warrant Considerations

Must keep Clinical records for
10 years

Insurance records for
2 years

RCDSO and CDHO

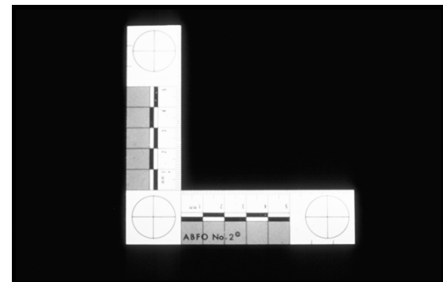
● Warrant Considerations

All ORIGINAL
dental records
NO COPIES

● #2 Dental Photographs

- Full Body View (Orientation)
- Close-up of area
- Without ABFO #2 Scale
- With ABFO #2 Scale

ABFO #2 Scale



American Board of Forensic Odontology

•
#3
Bite Exemplars
Aluwax®

•
#4 Study Models
Alginates
and / or
Poly Vinyl Siloxane

•
Dentistry's
Scope / Role
=
Head & Neck

•
DHCPs must work with:

- ▶ Children's Aid Society
- ▶ Police Services
- ▶ Medical Professionals
- ▶ Hospital Emergency Departments
- ▶ Paramedics
- ▶ Teachers
- ▶ Coroner's Office
- ▶ with other dental offices!

•
Your reporting
allows all team
investigators
to
look elsewhere!

•
FACT
Biting is a common
Aggressive Act especially
during
Sexual Investigations

ADULT PATIENT ??????

- Every night @ 3,300 women + 3,000 their children seek shelters in Canada to escape violence
- 40,000 Canadian arrests annually on Domestic Violence 22% of reported violent crimes

- Reality: 2.2 Million Cases Annually @ 12% = 264,000
- Canadian women report 460,000 sexual assaults but only 22% reported to police
- Rate of spousal abuse increased in 2010 by 19%; 3rd increase in 4 years

Canadian Facts on Violence

- 50% of all women in Canada have experienced at least one incident of physical or sexual violence since the age of 16
- 67% Canadians know of at least one abused woman

National Clearinghouse on Family Violence – Health Canada

Canadian Facts on Violence

In spousal violence

- 83% is against women;
- 3x women reported being
 - choked (strangled)
 - beaten
 - threatened with a knife or gun
 - sexually abused (raped)
 - feared for their lives

Facts on Violence

- Domestic violence is a gradual process slowly increasing in severity & intensity with time
- Male abuser stalks the female partner destroying her own self-confidence

Domestic Violence

- 96% identified abuser as ex-partner, partner or spouse
 - 94% calls conducted in English
- 36% were referred by social service agency, hospital or health centres

Facts on Violence

- Domestic violence reaches maximum with divorce and/or pregnancy
- Male abuser stalks the female partner with strangling a common form of attack (check: neck bruises)

●
The Police frontman Sting
wrote it after separating
from his first wife.

It is about an obsessive
stalker, but it sounds like a
love song.

●
“Every breath you take
And every move you make
Every bond you break
Every step you take
I'll be watching you..”

●
“Every move you make
Every vow you break
Every smile you fake
Every claim you stake
I'll be watching you

●
“ ... often abused (my)
mother – by punching her
and dragging her around
the house by her hair –
once watching him push her
mother's head into a toilet”

●
“Several occasions in (my) teenage years ... (he) entered the kids’ bedroom at night, believing them asleep ... whispered vile profanities to (her)... and

●
... “one time he cupped his hand around (my) breast when he thought (I) was asleep”

*From This Moment On
Autobiography by Shania Twain*

Black eyes, I don't need 'em
Blue tears, gimme freedom
Positively never goin' back
I won't live where things are so out of whack
No more rollin' with the punches
No more usin' or abusin'

I'd rather die standing
Than live on my knees
Begging please-no more

Song: Black Eyes, Blue Tears

**Domestic
Violence
Abuse / Assault**

**4 Questions
to ask
ADULTS**

**2 Rules:
ANSWERS MUST BE**

- 1) Yes or No**
- 2) The TRUTH**

QUESTIONS

- 1) Not as Described Y/N
- 2) Assaulted ? Y/N
- 3) Know attacker? Y/N
- 4) Prepared to lay charges? Y/N

- 5) Gather information

**Criminal
Injuries
Compensation
Board
(C.I.C.B.)**

- **Research & Plan ahead for Shelters & Agencies that can help NOW**
- **Have an EMERGENCY PLAN**
(Office Lunch Speakers)

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