

Electronic Control Weapons: *Reading the Evidence*

**Submitted to the
City of Berkeley**

Stanford Law School | Stanford Criminal
Justice Center

Report: Methods & Scope

Report examined empirical research on:

Health Effects

Public Safety
Outcomes

Complements

...and also addressed:

Background
of Technology

Use of Force
Policy

Legal
Framework

See full report for detailed treatment of these subjects.

Report did not address:

Fiscal impact

- Equipment
- Litigation
- Workers Comp

Yes / No
Prescription
for
Berkeley

Roadmap for today's presentation:

Health
Effects

Public
Safety
Outcomes

Complementary
Tools

1. Health Effects

Why the uncertainty about safety?

Sources of Information

Death counts vary
because cause of death
isn't always clear

Media reports high-
profile disasters,
not routine events

Medical Research

Limitations of
Current Research

Emerging
Questions

“Broad conclusion” and caveats:

Current evidence suggests ECWs usually safe, if subject is . . .

Not
under
influence

Generally
healthy

Not
pregnant

No mental
illness

. . . and the shock is

Applied to approved
area of body

5-15 seconds
in duration

“Broad conclusion” and caveats:

But in the real world, subjects . . .

Are often
under the
influence

Have latent /
undiagnosed
health
problems

Often suffer
from mental
illness

Could be
pregnant

. . . and the shocks can easily

be applied to
unapproved areas

exceed 5-15
seconds

Nevertheless, NIJ concludes:

Police forces need not
discontinue use, if they have
appropriate training and policies.

2. Public Safety Outcomes

Relationship between ECWs and:

**Lethal
force**

**Officer
injury**

**Suspect
injury**

Research limitations

Poorly
designed
experiments

Duplicative use
of limited data

Funding
bias

What do the best studies show?

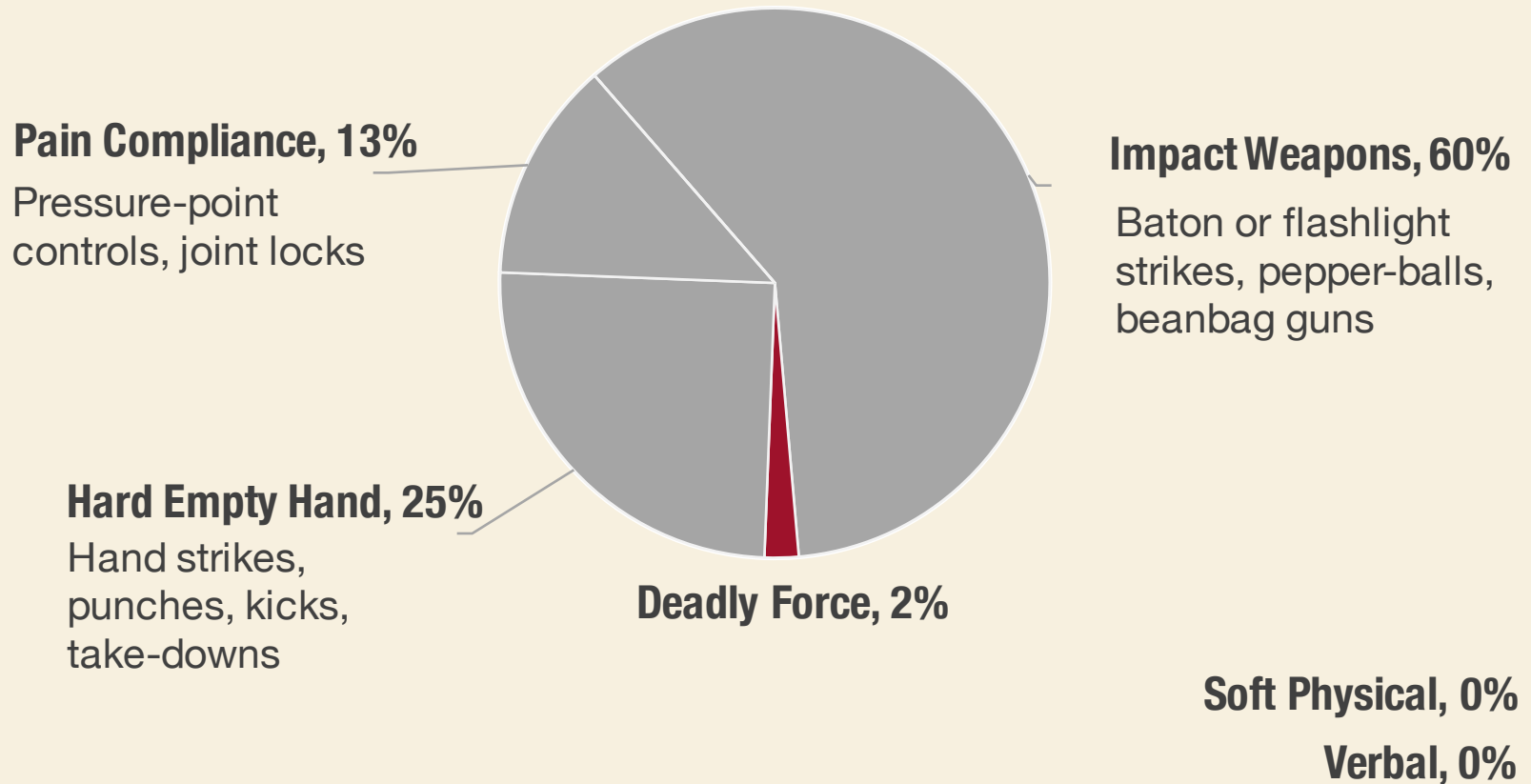
Q1: Do ECWs replace use of lethal force?

A: Probably Not.

- Few studies, all of them weak.
- If so, would require most permissive ECW force policies.

Terrill & Paoline (2012) surveyed 662 police agencies on use of force policy.

ECWs were rarely placed with deadly force.



Q2: Do ECWs reduce officer injuries?

A: Probably.

3 major studies suggest “yes” — and their varied methodologies bolsters conclusion.

2 major studies suggest “no” — but they have data & design issues.

Q3: Do ECWs reduce suspect injuries?

A: Depends who you ask, and how.

Q3: Do ECWs reduce suspect injuries?

Underlying question: **Count barbs as “injuries”?**

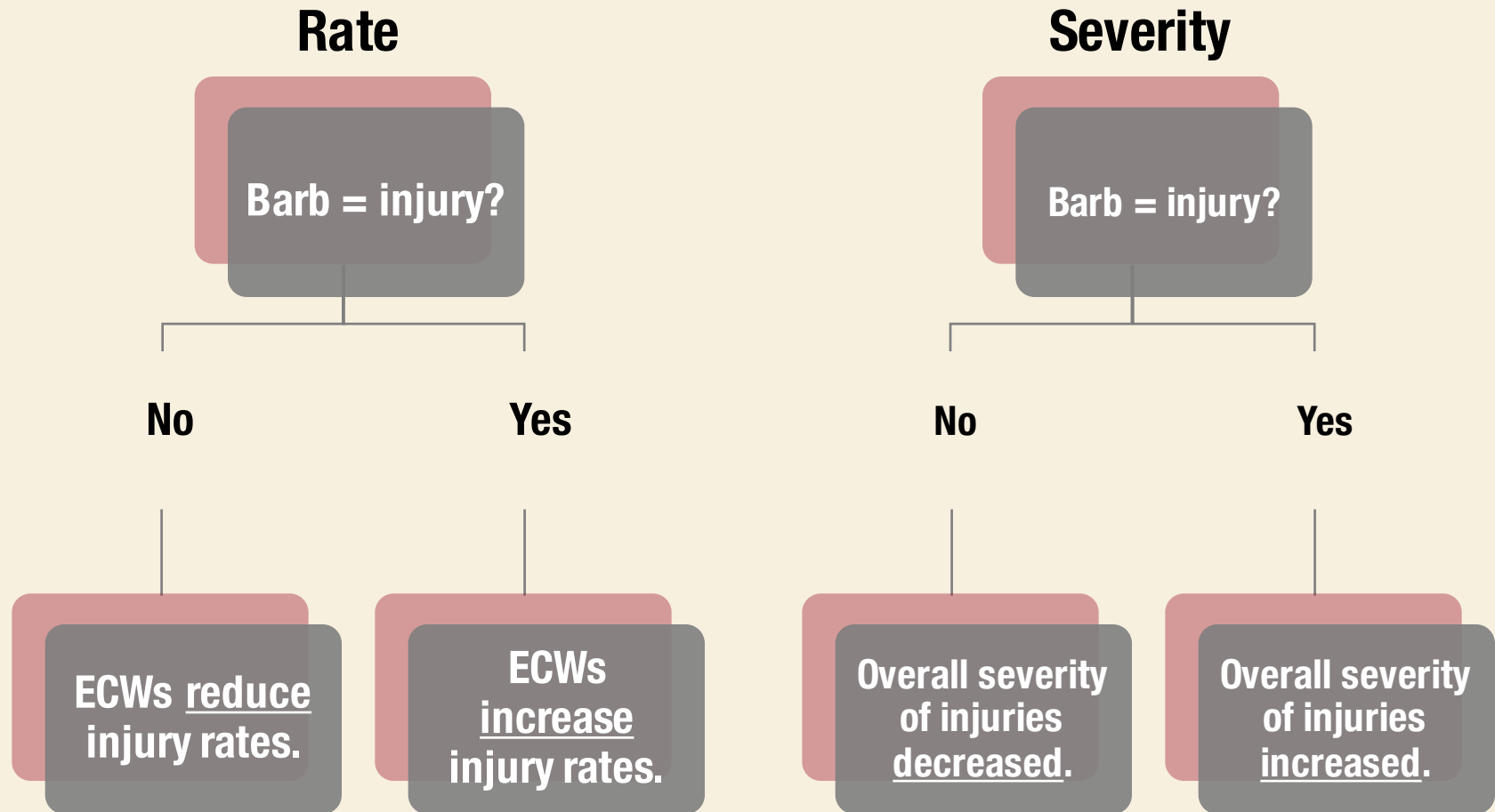
“No, barbs are not an injury.”

– Kaminsky, et al.
MacDonald, et al.
PERF

“Yes, barbs are an injury.”

– Terrill & Paoline

Underlying question: Count barbs as “injuries”?



What's the “right” answer?

“No, barbs are not an injury.”

– Kaminsky, et al.
MacDonald, et al.
PERF

“Yes, barbs are an injury.”

– Terrill & Paoline

**U.S. Court of Appeals for
the Ninth Circuit has
characterized barb
punctures as “injuries.”**

See Bryan v. MacPherson
630 F.3d 805, 813–14 (9th
Cir. 2010)

3. Complementary Tools

Do these methods reduce injuries?

A: Possibly, but more study is needed.

- **De-escalation Techniques:**

- Refers to various programs, so it's hard to measure adoption and outcomes — but LEAs recognize the need.

- **Crisis Intervention Teams (CIT):**

- Promising, but research still developing.
- Non-uniform adoption defies measurement.
- Studies measure changes in officers' attitudes, not outcome data.

Conclusion