

MEMO LUCAS™2 Crash Test

With LUCAS™2, chest compressions do not have to be a compromise between rescuer safety and compression efficacy

Some cardiac arrest patients will require CPR during transportation in an ambulance. However, it is well known that providing CPR in a moving ambulance is not only close to impossible to do effectively or without frequent interruptions, it also puts the CPR provider's safety at risk. Lifesaving becomes a compromise on rescuer safety as well as critical patient care.

"Restrained ambulance occupants involved in a crash had 3.77 times lower risk of fatality and 6.49 times lower risk of incapacitating injury than unrestrained occupants."

Becker LR et al, Accident Analysis & Prevention 2003: 35; 941-948



With LUCAS, rescuers can sit safely belted while LUCAS performs guidelines-consistent and effective chest compressions with a minimum of interruptions. This increases the chances for good patient outcomes and improves the safety of rescuers.

LUCAS™2 is tested safe in >10g crash test

LUCAS[™]2 has been tested safe in a crash test performed by an independent company. LUCAS was found to be safe for personnel and patient at 10g and 16g deceleration tests.

- The crash test was done with LUCAS™2 at Klippan Safety, an independent company performing crash tests. Klippan Safety also perform truck safety tests for major truck manufacturers.
- A 74 kg / 163 pounds crash test manikin (type hybride 2), the same type of manikin used for testing of car safety belts, was used.
- The manikin was strapped according to ambulance praxis on a stretcher. The stretcher was fixed to the crash sled.



Max deflection of LUCAS at 16.4 g deceleration

- LUCAS was applied on the manikin with the Stabilization Strap attached, and tested with and without hands strapped to the device (no difference in results)
- Deceleration forces of 10 g, as in accordance with European Ambulance Standard EN 1789, and up to 16 g were tested. LUCAS was found safe.