Advanced Automatic Crash Notification

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Advanced Automatic Crash Notification Algorithms
Integration of individual technologies and systems

Parking
- Driving information & support
- Accident warning & avoidance
- Damage mitigation
- Passenger protection
- Rescue

Active safety
- Radar Cruise Control
- Distance warning
- Lane Keeping Assist
- Lane Departure Warning
- AFS
- Night View
- Blind Corner Monitor
- Network Linked Navigation System
- VDIM Brake Assist
- VSC ABS

Pre-collision
- Frontal Pre-collision System with Pedestrian Detection
- Rear-end Pre-collision System

Passive safety
- GOA
- Seatbelts, airbags
- Pedestrian Injury-Reducing Body

Emergency response
- HELPNET

Integration of individual technologies and systems

Crash

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What is AACN?

Crash → Algorithm → Signal → EMS → Hospital
Background (Phase I)

Occupant involved in crash → Toyota Automatic Crash Notification Calls EMS (right time) → Occupant Transportation Decision Algorithm → Output: Decision (right place)

Decision A: Trauma Center immediate transport is needed based on algorithm and target injury list (right treatment)
Decision B: No Trauma Center Transport is needed based on algorithm and target injury list
Phase II

Occupant involved in crash

Toyota Automatic Crash Notification Calls EMS (right time)

Occupant Transportation Decision Algorithm

Output: Decision (right place)

Decision A: Trauma Center immediate transport is needed based on algorithm and target injury list (right treatment)

Decision B: No Trauma Center Transport is needed based on algorithm and target injury list

Phase II End goal of earlier notification for trauma in order to save lives
Research Goals

- AACN Algorithm
- Target Injury Risk
- Validate AACN Algorithm
Schedule 2011 - 2012

- AACN Algorithm
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- Validate AACN Algorithm

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TOYOTA SAFETY TECHNOLOGY SEMINAR