

**H**HEAD **o**f **D**DIVISION

**(HOD)**

**STAMPEDE SAFETY**

under

**DIRECTOR SAFETY**

## STAMPEDE PREVENTION in TEMPLES

### CROWDS ARE DEAF AND DUMB.

It often looks like a crowd has intentionally trampled the victims. But what usually happens is that the people in the rear of a crowd do not know that someone in front has fallen. They still have room to move, unlike the people in front, so they continue to press forward. The compounding pressure can bend steel like it's made of rubber. "It only takes five people to push against one to break a rib, collapse a lung or smash a child's head,. Most stampede victims die of asphyxiation – they literally cannot breathe due to the pressure of the crowd.

## PHYSICS MATTER MOST OF ALL.

When crowds are moving, there should be no more than two to four people per square meter to prevent injury. It's a simple mathematical reality. Otherwise, people do not have enough room to recover from being jostled. Someone can easily fall. Then someone else will lean down to help that person and get sucked down, too. The pile up begins, absorbing the growing pressure of all the people coming from behind.

Once a crush begins, it's very hard to reverse the flow. So it's essential that temples preserve enough space anywhere the crowd may flow.

"People aren't inherently interested in hurting each other." But managing crowds is not something people do well without knowledge and training. Patrolling a **MUST** along the queue .

## RUMOURS TAKE TOLL

Stampede in a temple has happened due to sudden rumours of a suspected electrical short-circuit reportedly triggered a panic run. Stampedes have occurred when there were rumours of fire accident.

## OVERCROWDING is an IMPORTANT CAUSE

Overcrowding on the passage is also responsible for stampedes. Congregation of people is always prone to such crowd disasters. It may be due to psychological state of panic that makes the crowd go berserk. But, often such crowd behaviour turns fatal due to breakdown of co-ordination resulting from inept planning.

## THE CROWD CARRYING CAPACITY

The crowd-carrying capacity of entry and exit points and the pathway in between should be taken into account while allowing people .People have to be allowed in batches .

### COMMUNICATION is IMPORTANT

Effective public address system should be in place to warn the public to avoid panic.. Temples where people gather in large numbers , must be analysed for risks. The comprehensive crowd management plan should foresee all possible risks and clearly identify people to manage them. Spread of rumours can trigger mob frenzy. Effective communication through public address system should be put in place to regulate crowds.

There are multiple causal interdependencies for a crowd-related disaster to strike. They include failure of flow controls, a lack of overview of everybody etc.

## EFFECTIVE CROWD FLOW MANAGEMENT

Elaborate contingency plans should be worked out and executed effectively in case earlier crowd management plans fail. Better communication should exist among temple staff , volunteers and priests . One should be conscious of early signs of a crowd disaster. Evacuation of people should begin before the area gets overcrowded, thus rendering it difficult to manage. This would at least mitigate the disaster, if not prevent it.

Effective crowd flow management is critical to avert such tragedies. Experts suggest measures like avoidance of intersecting flows separating different flow directions, considering alternative routes for crowds to flow, reserving space for emergency movement of personnel, removing bottlenecks in the organisation and obstacles in the seamless flow of crowds, etc. Crowd disasters occur due to interplay of multiple factors.

The problem is not lack of resources or capability, but the lack of will. Crowd management strategies should be part of an overall disaster management efforts as temples often witness mass congregation of people. A crowd disaster is a man-made one which can be completely prevented with proactive planning and flawless execution.

# How to Survive a Stampede?





## FOR THE GUIDANCE OF PILGRIMS STANDING IN THE QUEUE

Mass casualties can result from a human stampede. A peaceful crowd can quickly turn into a senseless panicked heaving mass in which rational behavior by any single individual becomes nearly impossible. What's worse is that the stampede can be triggered while there is no actual danger. Under certain situations, a crowd that has grown to a big and tight enough size and density reaches a critical state at which the slightest twitch is sufficient to send it into a stampede.

Panicked crowds move fast and release an incredible amount of energy, usually compared to the energy generated by a running train: once a crowd gets moving it is very hard to stop, and the flow of people could literally sweep you off your feet.

It is interesting to note that the force of only 6 or 7 people pushing in the same direction can generate up to 1000 lbs of force - enough to bend steel railings and topple brick walls. During a deadly stampede, people can even die standing up... people die when pressure is applied to their bodies in a front to back direction, causing them not to be able to breath. When pressure is applied to their side, they often survive, probably because their rib cages are protecting their ability to breath.

If you are in a crowd, a first and most important thing is to make yourself familiar with your surroundings and mentally **notice alternate exits**. No matter where you are, make sure you always know how to get out.

Make yourself aware of **the type of ground you are standing on**, and know that in a crowd of moving people wet or uneven ground can be slippery or hazardous, causing you to fall.

Be aware of the general atmosphere of the event, as panic situations can often be anticipated. When in danger, a few seconds can make all the difference, giving you the possibility of taking advantage of your escaping route.

**Always stay closer to the escape route.**

If you find yourself in the middle of a moving crowd **do not** fight against the pressure, **do not** stand still or sit down, because you could easily get trampled.

Instead, **move in the same direction of the crowd**; take advantage of any space that may open up to move sideways to the crowd movement where the flow is weaker.

**Keep your hands up by your chest**, like a boxer - it gives you movement and protects your chest.

**If you fall, get up quickly. If you can't get up because you are injured, get someone to pull you back up. If you have kids, lift them up.**

**If you fall and cannot get up, keep moving by crawling in the same direction of the crowd, or if that is not possible, then cover your head with your arms and curl up into the fetal position (do not lay on your stomach or back, as this dangerously exposes your lungs).**

The worst scenario is to be pushed by the crowd against an immovable object. Try to stay away from walls, fences or barricades, as the crowd pressure can build up rapidly.

After you're pushed forward, like in a wave there's a lull. In that lull is your chance to move, and the way you move is on a diagonal, between pockets of people. There's always space between people. A couple of steps sideways, another wave surge, then another couple of steps in the next lull. You work your way out that way till you get to the periphery.

TEMPLE **ExNoRa** SEVAKS

for STAMPEDE SAFETY



**VOLUNTEERING**

TEMPLE **ExNoRa** SEVAKS

will GUIDE the queue



See a separate

**PPT/ e BOOK**

in the WEB INDEX for

**STAMPEDE SAFETY by  
QUEUE FORMATION &  
REGULATION**

**HEAD** of **DIVISION** (**HOD**)

**P5**

**P****OLICE**

**P****UBLIC**

**P****IVATE**

**P****OPLE**

**P****ARTNERSHIP**

**P**OPLE **P**OLICE **P**ALS

**DIRECTOR SAFETY**



Important for various kinds of Safety including

## CROWD SAFETY

POLICE

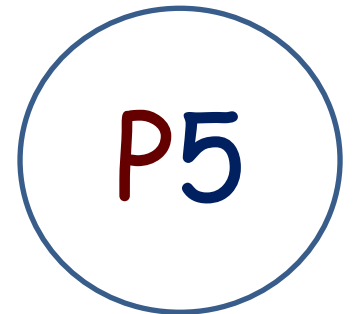
PBUBLIC

PRIVATE

PEOPLE

PARTNERSHIP

**VOLUNTEERING**



POLICE PUBLIC  
PRIVATE PEOPLE  
PARTNERSHIP

P5



## PARTNERS

1. POLICE

2. PUBLIC

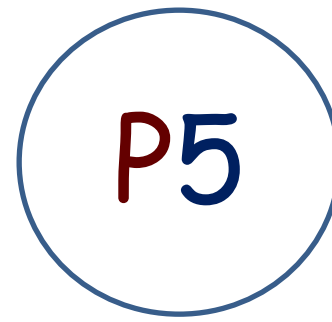
3. PRIVATE

4. PEOPLE

PARTNERSHIP

VOLUNTEERING

POLICE PUBLIC  
PRIVATE PEOPLE  
PARTNERSHIP



## FIELDS of PARTNERSHIP

### **VOLUNTEERING**

1. INTELLIGENCE
2. VIGILANCE
3. SURVEILLANCE (24 x 365)
4. LAW & ORDER
5. CRIME PREVENTION & INVESTIGATION
6. TRAFFIC MANAGEMENT
7. FIRE PREVENTION & FIGHTING

# STAMPEDE SAFETY

Implementing voluntary Wing

**P**OLICE

**P**EOPLE

**P**AALS

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# VOLUNTEERING

Implementation  
by  
Police People Pals

See a separate  
**PPT/ e BOOK**  
in the WEB INDEX for

STAMPEDE SAFETY via  
POLICE PUBLIC PRIVATE  
PEOPLE PARTNERSHIP

# TOTAL SOLUTION

**MANUSHYA SHASTRA, HUMAN SCIENCE**

**for**

**BEING HUMAN BEING**

**for**

**realising**

**JEEVAN SHASTRA LIFE SCIENCE**

**for**

**LIVING as HUMAN BEING**

**The longer you delay leaving a crowd crush environment, the harder it will be to escape**











# STAMPEDE



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