

# How does surge attacks work?

If a unit/enemy has a surge ability, this means it has a chance to create a Surge randomly within a certain area.

## **Surge Attack is defined by 3 parameters:**

1. Proc Rate - The chance of a Surge happening after an attack is successfully delivered.
2. Area of Effect - The range in which a Surge might spawn.
3. Surge level - Each level decides:
  - a. How long the Surge stays - For each level, the surge lingers for an extra 20f (0.67s).
  - b. How much DMG enemies take when they're inside the surge. For each level, enemies take 1x of attack DMG per 20f.

## **Additional Information:**

1. A Surge has a single spawn point, which is a single point within the Area of Effect.
2. Surge has a 375 range width. Starting from spawn point, surge has 125 outward piercing range and 250 inner range.
3. Surge is classified differently from Wave Attack. This means Wave Immune, Wave Blocker, and Wave Resist do not affect it in any way.
4. Surge cannot harm bases.
5. Surge damage is the same as the damage of base attack. If a user deals 100k DMG, the Surge deals the same DMG. If a user has Freeze ability, the Surge can carry this ability as well.
6. Following point 5, Surge ability procs completely mimic the user's main attack. Say the user has Critical Attack. If the main attack deals a critical, all surge hits will also deal a critical attack. If the user doesn't deal a critical hit, none of the surge hits will either.

## **Calculating Effective DPS for Surge Attackers:**

DPS of a surge unit can be calculated using the formula:

$$\text{Surge DPS} = \text{Base DPS} \times \text{Surge Level}$$

e.g. Level 30 Uril has a Base DPS of 803 and a Surge Level of 3. So his surge carries a DPS of 2409 if all hits connect.

Certain units [most notably Kaslis] tend to also hit the target that their surge hits with their LD. For them,

$$\text{Maximum Effective DPS} = \text{Base DPS} + \text{Surge DPS} = \text{Base DPS} \times (\text{Surge Level} + 1)$$

e.g. Level 30 Dark Kasli has a Base DPS 2931 and a Surge Level of 3. So her surge carries a DPS of 8793 if all hits connect; and if her initial attack also hits the target, she has an Effective DPS of 11724.

Adapted from a message by Pandango#3036 from the discord server