

Health For Attack Tradeoff Feature

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Objective/Target Emotion

A health system which encourages fast level progression ideally promoting a knife's edge emotion from players.

The player should be constantly balancing moving throughout a floor at a fast pace along with accuracy in their shots to not diminish their main health or time limit.

Summary/User Experience

The player starts a run, they load in and the character emits a grunt. Their wound is no longer being kept at bay, they are slowly bleeding out. As they progress through and face enemies they have two options. Light attacks utilizing their blood or heavy attacks that take a more substantial chunk of health. As the player uses light attacks to deal with smaller enemies the timer's tick down speeds up. When the player uses heavy attacks their HP bar takes one damage. If the heavy shot kills an enemy they get the HP refunded. As they take hits and miss shots their health starts getting lower, should they avoid using heavy attacks to preserve a cushion of health, have they been taking too long and worry about their time running out? As their skill increases over runs they should be rewarded for playing well. Barely scrapping through a level at first, growing their skill in order to cruise through the first few levels eventually.

Detailed Design/Concrete Features

Two health types to account for

- Hit Points(HP) - base 10/10
- Bleed Out Timer - Length TBD by Level Size - Estimate: 8 Minutes per floor
 - Refer to [Bleed Out Timer Feature](#)

Base Attack Types

- Health Replenishment

Health can be replenished through killing enemies with the heavy shot, through pickups, or through combo-ing kills without taking enemy damage. Specific items/upgrades can allow for additional way to gain health or time.

Attack Types	Description	Acceptance Criteria**	Base Damage*	Fire Rate*	Cost*	Reasoning
Light	A high fire rate low damage shot that players can spray in the early game without much consequence.	<ul style="list-style-type: none"> - Must have above 5 shots per second. - Must be at least 2x the firerate of the base heavy attack. - Cannot have more than 20x the heavy shot firerate. - Must have at most 0.1x the damage of the heavy shot. - Must have at least 1 damage per shot. - Must cost at least 0.01 seconds per shot off the bleedout timer. - Cannot cost more than 0.5 full second per shot off the bleedout timer. 	2 per shot	10 per second	0.025 seconds off bleedout	Although cheap, we want the player to be able to spam these shots fairly regularly against enemies that might be harder to hit. So cheap time cost but equally cheap damage. This allows the player to finish off low health enemies without wasting a full unit of health that a heavy shot might cost if they miss, or to soften up an enemy for the finishing blow with a heavy shot.
Heavy	A slower high power shot that takes health for each shot, refunding the cost if it kills an enemy	<ul style="list-style-type: none"> - Must shoot at most 2 shots per second. - Must have at most 0.5x the firerate of the light attack. - Cannot have less than 0.05x the firerate of the light attack. - Must deal at least 10 damage per shot - Must deal at least 10x the light shot per bullet damage - Must cost at least 1 HP per shot - Must restore 1 HP per kill 	40 per shot	1 per second	1 HP refunded on enemy kill	This should be the finishing move for most players. Utilizing this to finish most enemies as a quicker end to the enemy as opposed to spending more bleedout time with the light shot usage. If the player gets good at balancing usage of this, even if they miss a few shots(and keep in mind self damage shouldn't disrupt player combo), they can quickly chain kills of low health enemies to finish rooms faster and maintain a high combo for health refunding

Attack Types	Description	Acceptance Criteria**	Base Damage*	Fire Rate*	Cost*	Reasoning
Last HP Heavy Shot	Same as the heavy shot, you're able to shoot the heavy shot with your last HP, if it hits an enemy you get it refunded, but if you miss you die.	<ul style="list-style-type: none"> - Same base criteria as the normal heavy shot. - Can only be utilized when the player is on their last HP - Cannot be used again until the previous shot has landed, whether on an enemy or wall - Deals 1.5x the damage of the normal heavy shot - Holds the last unit of HP in stasis, if it hits an enemy, restore the health to normal, if it misses, kill the player. - Also costs at least 10x the bleedout cost of the light attack and at most 60x. 	60 per shot	1 until it hits	1 HP refunded on hit, 0.5 seconds off bleedout	This is the glass cannon or last resort option. Players could choose to fully rely on this shot for it's high damage potential along with fast relative output. If the player has been struggling through the level and running low on time, it also allows them the option to keep progressing without actively worsening their situation by using the light attack. Spamming up close to enemies would allow faster damage output but risks enemies running into them and killing them with contact damage.

*Exact numbers up to change

**All criteria assume unmodified base stats

Answered Questions

Question	Answer(s)	Additional Considerations or other options
Should we allow the player to make up for lost bleed out time and if so how?	A Combo System based on accuracy providing the most reliable method along with consumable from room clear rewards and shops.	Some passive and active items picked up by the player might enable alternative methods of regenerating time
How will the player replenish HP from utilizing the heavy attacks?	This will also be primarily done through the Combo System resulting in occasional health drops along with random room rewards and shops.	Again this can be impacted by passive and active items,
Will there be any measures to allow players a fair chance in Boss or Champion encounters	When entering a boss fight the player will be awarded an additional amount of time (something along the lines of 40-80 seconds). Players who are skilled at boss fights are rewarded with that extra time to backtrack and explore the floor. Once a boss is defeated, the room is treated as a safe zone where bleed out is paused.	Meta upgrades could impact how much additional time is provided, additionally could also increase the amount of time provided based on the health of the boss. Further details in Sacrificial Boss Fights

Challenges To Keep In Mind

- Constant Stress: it's important there are times/areas where the player can gain reprieve from the constant rush and need for speed. We want them on the knife's edge but not to feel anxious the entire time the play. Similar to the idea of a safe room in horror games, we should allow at least between levels an area where the player can recoup to some degree. Perhaps similar to the upgrade area between floors as in Dead Cells.

Related Features

- [Combo System](#)
- [Enemy Drops Feature](#)
- [Bleed Out Timer Feature](#)
- [Passive Items](#)
- [Sacrificial Boss Fights](#)

References/Inspiration:

- The Binding of Isaac
- Enter The Gungeon
- Dead Cells