What Is Restaking?

A plain-language explainer of how already-staked ether is put to work a second time — securing new services for extra yield, and the layered risk that comes with it.

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Restaking is one of the most talked-about ideas to emerge from Ethereum in recent years, and also one of the most misunderstood. At its simplest, it lets ether that is already staked do a second job: on top of helping secure Ethereum itself, that same stake can be pledged to secure other services in exchange for additional rewards. It is a clever way to make capital work harder — and, precisely because it stacks one commitment on top of another, it is a genuinely riskier form of an already-risky activity.

This report explains what restaking actually is, why it was invented, how the mechanics work, what the rewards and the dangers look like, and where the idea is heading beyond Ethereum. It assumes you understand ordinary staking; if that is still new to you, our explainer on what Ethereum staking is is the right place to begin, because restaking builds directly on top of it.

AT A GLANCE

WHAT IT IS **Reusing staked ETH to secure extra services**	PIONEERED BY **EigenLayer, on Ethereum**
WHAT IT SECURES **AVSs — Actively Validated Services**	LIQUID VERSION **LRTs — liquid restaking tokens**
CORE TRADE-OFF **Extra yield for extra slashing risk**	KEY CAUTION **Layered risk, not free money**

01 — WHAT RESTAKING ACTUALLY MEANS

When you stake ether, you lock it up to help run Ethereum's consensus — the process by which the network agrees on its own history — and you earn a yield for doing so. Restaking takes that same locked ether and, without unlocking it, commits it a second time to back an additional service. The staker opts in to extra obligations; in return, they become eligible for extra rewards from whatever they have agreed to help secure.

The crucial mental model is layering. Plain staking is one job with one set of rules and one way to be penalised. Restaking adds further jobs, each with its own rules and its own penalties, all resting on the same underlying deposit. That is the source of both its appeal and its hazard: the capital is reused rather than duplicated, so the same ether now stands behind several promises at once. Think of it less as depositing money in a second account and more as co-signing additional guarantees with collateral you have already pledged elsewhere — the collateral has not grown, but the number of things that can go wrong has.

02 — WHY IT EXISTS: THE POOLED-SECURITY IDEA

Every new blockchain service — a data-availability layer, a bridge, an oracle network — faces the same cold-start problem: to be trusted, it needs a large pool of economic value backing it, but building that pool from scratch means launching a token and recruiting validators before anyone is using the thing. Restaking offers a shortcut. Instead of bootstrapping its own

security, a new service can effectively rent Ethereum's, drawing on the enormous base of already-staked ether that secures the main chain.

This is the concept of *pooled security*, sometimes called shared security. Ethereum's stake is the largest crypto-economic security base outside Bitcoin, and its strength rests on the proof-of-stake design covered in our note on proof of work versus proof of stake. Restaking is the plumbing that lets other projects borrow a slice of that strength rather than reinventing it — a meaningful efficiency for the ecosystem, if the risks are respected.

03 — HOW RESTAKING WORKS

In practice, restaking runs through a protocol that sits between stakers and the services being secured; EigenLayer is the protocol that pioneered and popularised the model on Ethereum. There are two broad ways in. In *native restaking*, an Ethereum validator points its withdrawal credentials — the settings that control where its stake can go — at the restaking protocol's smart contracts. In *liquid-staking-token restaking*, a user instead deposits a liquid staking token, such as stETH, into the protocol without running a validator at all.

From there, a delegation model does the work. Stakers delegate their restaked ether to *operators*, professional participants who run the software required by the services being secured. Operators choose which services to support, and the delegated stake stands behind those choices. The services themselves are known as AVSs, and understanding them is the key to understanding what the yield and the risk are actually attached to.

04 — AVSS: WHAT RESTAKED ETHER SECURES

AVS stands for *Actively Validated Service* — any system that needs its own network of participants staking value to behave honestly. Restaked ether can be pledged to secure these services, and in return the service pays rewards to the operators and stakers backing it. The categories are best treated as illustrative rather than fixed, since which services are live changes over time: they include data-availability layers that store transaction data, oracle networks that feed outside information onto a chain, cross-chain bridges, and entirely new networks that would otherwise have to launch their own validator set.

The logic is symmetrical. The AVS gains a large, ready-made security budget without issuing its own staking token; the staker gains an extra stream of rewards on ether that was already committed. But the same symmetry means the staker inherits the AVS's rules — including its

penalties — which is where restaking stops being a free lunch. In effect, each AVS you back is a separate contract you are underwriting: the more you support, the more your single deposit is spread across independent obligations, and the more carefully an operator must vet which services are actually worth the added exposure.

05 — LIQUID RESTAKING TOKENS (LRTS)

Just as plain staking spawned liquid staking tokens, restaking spawned *liquid restaking tokens*, or LRTs. Rather than interact with a restaking protocol directly, a user deposits ether or a staking token with a service — ether.fi, Renzo, Puffer and Kelp are among the better-known names — that does the restaking on their behalf and hands back a single tradeable token representing the whole position. That token keeps earning while the underlying ether is restaked, and can be held, sold, or used elsewhere in decentralized finance.

The convenience is real, but so is the stacking of risk. An LRT sits on top of a liquid staking token, which sits on top of the restaking protocol, which sits on top of AVS obligations — each layer adding its own smart-contract exposure and its own potential to trade below fair value during market stress. LRTs made restaking accessible to ordinary users; they also made the tower of dependencies taller.

06 — THE REWARDS, AND WHERE THEY CAME FROM

The promise of restaking is additional yield: the base staking reward, plus whatever the secured services pay on top. In principle this extra return should reflect real demand — services paying fees for the security they consume. It is important to be clear-eyed about the early reality, though. Much of the first wave of restaking growth was driven not by mature service fees but by *points* and the expectation of future token airdrops, incentives that rewarded depositing early rather than any sustainable underlying cash flow.

The practical takeaway is to treat restaking yields as variable, unguaranteed, and not directly comparable to a savings rate. Any figure you see is a moment-in-time snapshot shaped by incentives that can change or expire. A durable restaking return depends on genuine, fee-paying demand from the services being secured — a market that is still young and still proving itself. Until that demand matures, a large share of the headline yield should be read as a temporary incentive rather than a stable, repeatable return.

07 — THE RISKS: LAYERED, NOT ELIMINATED

Restaking's central risk is compounded slashing. *Slashing* is the penalty that destroys part of a validator's stake for misbehaviour; by opting into an AVS, restaked ether becomes subject to that service's slashing conditions *in addition to* Ethereum's own. More commitments mean more distinct ways to lose principal. On top of that sits smart-contract risk — funds live in the protocol's code, so a bug or exploit at any layer can cause loss — and, with LRTs, the added risk of the token de-pegging when liquidity is thin.

> Restaking is not free yield with no downside. It is the same capital pledged against more promises — each extra reward stream comes with an extra way for that capital to be penalised or lost.

There is also a broader, systemic concern that researchers have raised: because one pool of ether backs many services at once, a failure in one place could, in theory, cascade in a rehypothecation-like fashion. Ethereum co-founder Vitalik Buterin cautioned in 2023 against "overloading" Ethereum's consensus — warning specifically that disputes in restaked services should not be allowed to drag the base chain's social consensus into resolving them. No such cascade has occurred; it remains a structural risk to weigh, not an event to point to.

08 — BEYOND ETHEREUM, AND THE BIGGER PICTURE

Restaking is no longer an EigenLayer-only, Ethereum-only idea. A competing protocol, Symbiotic, offers an alternative design on Ethereum, and the concept has spread to other ecosystems, with efforts such as Jito and Solayer bringing restaking to Solana. The core insight — that a large, established security base can be rented out to secure new services — is general enough to travel, and the competition is likely to shape how safe and how sustainable the model becomes. Different designs make different trade-offs between how much freedom operators have, how slashing is enforced, and how isolated one service's failure is from the rest, and it is not yet settled which approach will prove most durable.

For Ethereum specifically, restaking has become a significant pillar of the investment case, tied up with the network's role as a settlement and security layer for a wider stack; we explore that argument in our piece on the ETH thesis, restaking and layer-2s. The honest summary is that restaking is a powerful primitive with real efficiency gains and real, layered risks. Treated as an

advanced strategy rather than a simple yield upgrade — understood, sized carefully, and never mistaken for free money — it is one of the more consequential ideas in modern crypto.

“But let every man take heed how he buildeth thereupon.”

1 CORINTHIANS 3:10

METHODOLOGY & SOURCES

This explainer describes restaking as it operates on Ethereum’s proof-of-stake system since The Merge. The definition, the pooled-security rationale, the native-versus-liquid-staking-token routes, the operator delegation model, the AVS concept, the structure of liquid restaking tokens, and the compounded-slashing and systemic-risk considerations were cross-checked by an independent multi-agent verification pass against protocol documentation and public research. EigenLayer’s rollout was phased: restaking deposits from 2023, operator and service functionality through 2024, and on-chain slashing enforcement arriving later, in 2025.

Yields, total value locked, market shares, and reward rates are described directionally and never as fixed figures, because they are incentive-driven and change continuously; any single number would be a same-day snapshot rather than durable guidance. Protocol names are illustrative of a fast-moving landscape, not endorsements, and the specifics of any service should be confirmed at the source before committing funds.

Related reading: What Is Ethereum Staking?, Proof of Work vs Proof of Stake, Explained, and The ETH Thesis: Restaking & Layer-2s. This material is educational only and is not financial, investment, or tax advice. Digital assets are volatile and carry risk of loss; always conduct your own research.