**Preventing VPN leaks**

DNS queries can be leaked, as well as other data like IPv6, if the VPN disconnects

**IPv6**

Easiest way to mitigate this is to just disable it because you most likely won’t be using it

* MacOS: Networksetup -setv6off Ethernet/Wi-Fi

How to block all non-VPN traffic

* Use a VPN with a built in DNS/IPv6 leak protection and Kill Switch for dropped connection
* Use host-based firewall to block any non-VPN traffic
  + Block all traffic not going to the VPN server
* Build a kill switch

Linux

* Use Iptables to block VPN leaks
* VPN firewall
  + Forbids outgoing traffic after VPN software breaks down
* VPNdemon
  + Kill switch for chosen application (network manager)
* Use firewall and kill switch

Can set up VM as VPN client (nested VPNs)

* PFsense
* Set VM up so that it only allows VPN traffic
* Use VM as gateway for host traffic
* If VPN drops, then there will be no internet connection through the gateway

Dnsleaktest.com for testing VPN DNS leaks

And use wireshark to double check