



Fibrin formation



1. Vitamin B12 Deficiency in COVID-19 Recovered Patients: Case Report

https://pesquisa.bvsalud.org/global-literature-on-novel-coronavirus-2019-ncov/resource/en/covidwho-934728?fbclid=IwAR1Xsg51V4QfVZnOUPpTWOFbIMhaayZgC6WZokL8kVfWUS_U51n2er37VeE

2. vitamin-d-and-b12-levels-a-clue-to-severity-of-respiratory-covid-19-covid19

https://www.hra.nhs.uk/planning-and-improving-research/application-summaries/research-summaries/vitamin-d-and-b12-levels-a-clue-to-severity-of-respiratory-covid-19-covid19/?fbclid=IwAR3GfE7TNZSM4VPuf7TIZRRT2vRDJqJ4nw53T4H3SYshbx_ghJY95iCLOCY



3. *Advanced B12 and cofactor therapy – ASAP*

<https://www.lifestylesbybean.com/b-12-why-the-urgency>



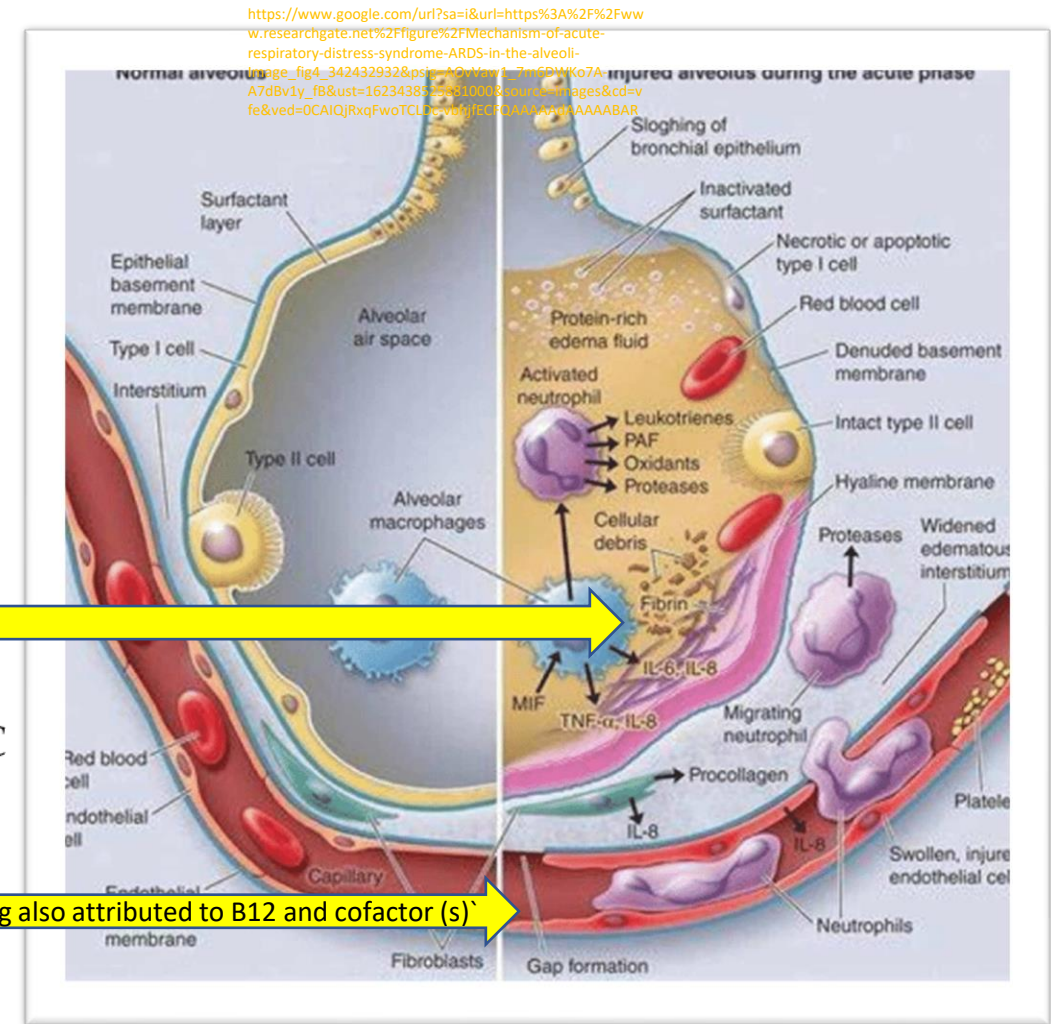
4. COVID19 ARDS -Fibrin formation B12 deficiencies increase fibrin.

At the Alveolar Capillary (AC) membrane B12 and cofactor deficient pt's create a thicker Hyaline membrane. This image shows how fibrin affects ARDS, Long-haul neurological manifestations, clotting, psych, and vessel involvement result from this deficiency.



<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5344667/>
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4901834/>
<https://www.sciencedirect.com/science/article/pii/S0306987720332655?via%3Dihub>

[https://mcpiqjournal.org/article/S2542-4548\(19\)30033-5/fulltext](https://mcpiqjournal.org/article/S2542-4548(19)30033-5/fulltext) Mayo clinic- the faces of a cobalamin deficiency.



Cellular level swelling also attributed to B12 and cofactor (s)