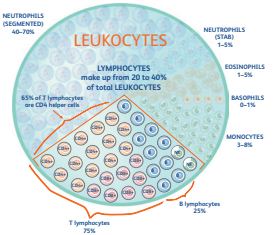
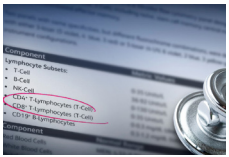
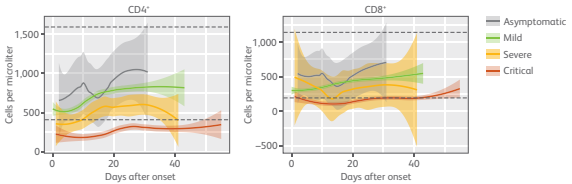
Assessing immunological abnormalities in COVID-19 disease may inform patient care

T-cells are a part of the leukocyte component in a complete blood count (CBC)



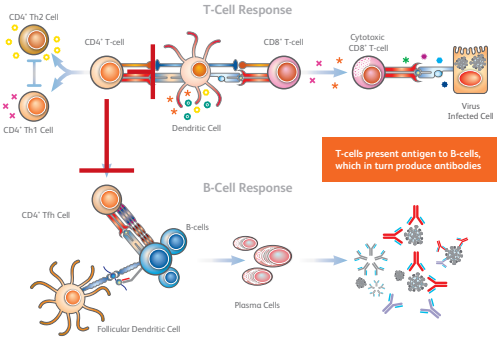


T-cell subsets typically decrease with increasing disease severity in COVID-19 patients[1]



Lymphocyte subsets in COVID-19 patients during hospitalization.[2,3] Adpated from: Zhang et al. 2020

CD4 and CD8 T-cells are important for triggering viral killing and antibody response

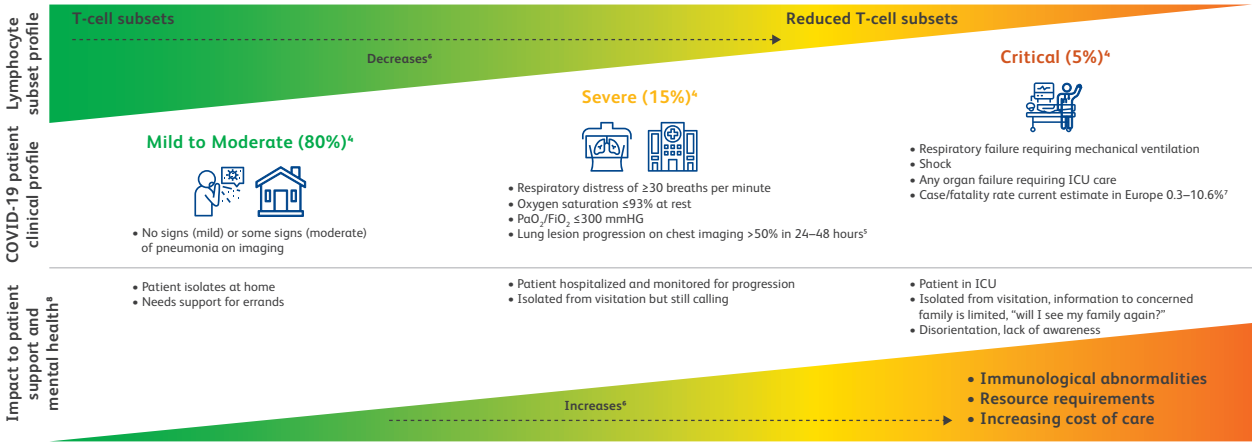


- A complete blood count (CBC) test captures lymphopenia in the blood but is unable to measure the specific lymphocyte populations that are impacting normal immune response.
- Individuals with COVID-19 typically exhibit a decrease of CD4 and/or CD8 counts with increasing disease severity.

Go ahead. Go beyond CBC, and enhance the immunological assessment of your COVID-19 patients. Find out more.

Use the BD Multitest™ 6-Color TBNK Reagent with BD Trucount™ Tubes to augment COVID-19 patient workup

This test generates the percentages and absolute counts of T, B and natural killer (NK) cells as well as the CD4 and CD8 subpopulations of T-cells in peripheral blood.



Because individuals with COVID-19 typically exhibit a prominent decrease of CD4 and/or CD8 lymphocyte count with increasing disease severity, knowing accurate counts of T-cell subsets can be critical to informing your course of action.

References
1. Huang W, Berube J, McNamara M, et al. Lymphocyte subset counts in COVID-19 patients: A meta-analysis. *Cytometry* A. 2020;97(8):772-776. doi: 10.1002/cyto.a.24172.
2. Zhang X, Tan Y, Ling Y, et al. Viral and host factors related to the clinical outcome of COVID-19. *Nature*. 2020; 583(7816):437-440. doi: 10.1038/s41586-020-2355-0.
3. Manson JJ, Crooks C, Naja M, et al. COVID-19-associated hyperinflammation and escalation of patient care: a retrospective longitudinal cohort study. *Lancet Rheumatol*. 2020. doi: 10.1016/S2665-9913(20)30275-7.
4. World Health Organization. (2020). Operational considerations for case management of COVID-19 in health facility and community: interim guidance, 19 March 2020. World Health Organization. https://apps.who.int/iris/handle/10665/331492.
5. Diagnosis and Treatment Protocol for Novel Coronavirus Pneumonia (Trial Version 7). *Chin Med J* 2020;133:1087– 1095. doi: 10.1097/CM9.0000000000000819
6. Vabret N, Britton GJ, Gruber C, et al. Immunology of COVID-19: Current state of the science. *Immunity*. 2020;52(6):910-941. doi:10.1016/j.immuni.2020.05.002
7. Oke J, Heneghan C. Global COVID-19 case fatality rates. https://www.cebm.net/covid-19/global-covid-19-case-fatality-rates. Published March 17, 2020. Accessed October 12, 2020.
8. Kotfis K, Roberson SW, Wilson JE, et al. COVID-19: ICU delirium management during SARS-CoV-2 pandemic. *Crit Care*. 2020;24(1):176. doi:10.1186/s13054-020-02882-x

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