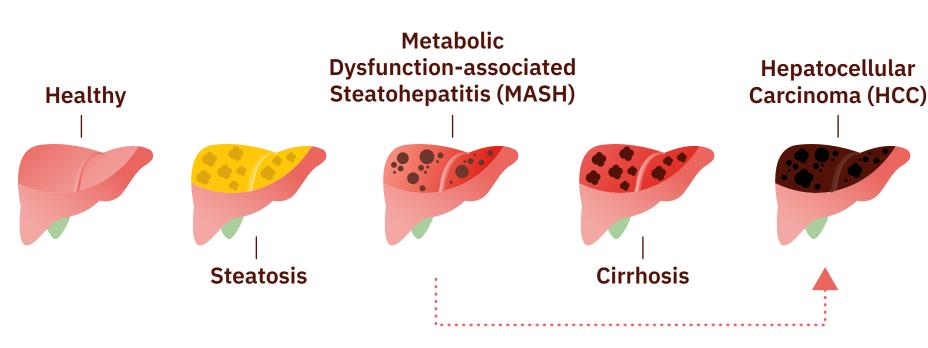
### Comorbidities in Psoriasis

## Psoriasis and Hepatic Disease

### Metabolic dysfunction-associated fatty liver disease (MAFLD) encompasses a spectrum of liver diseases<sup>1,2</sup>



Patients with MASH are at risk of progressing to advanced liver disease<sup>1,3</sup>

MASH can lead to cirrhosis in **12-25%** of cases<sup>3</sup>

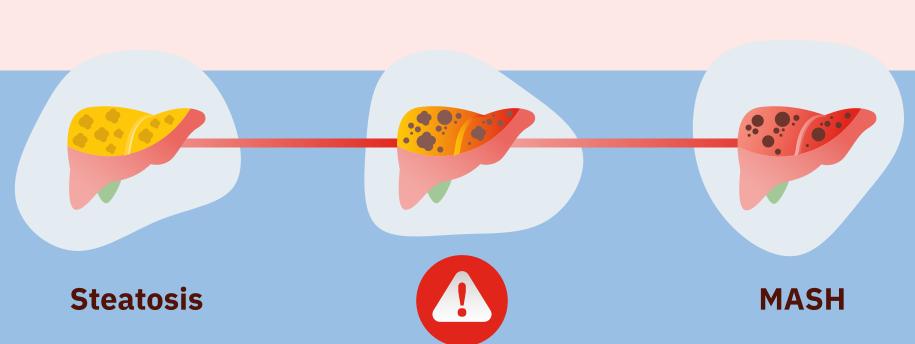
**HCC** develops at a rate of ~2% per year in MASH-related cirrhosis4

The pathogenic link between PsO and MAFLD/MASH may be bi-directional<sup>1,3,5,6</sup>

Skin lymphocyte-derived cytokines may circulate through and potentially damage the liver<sup>5</sup>

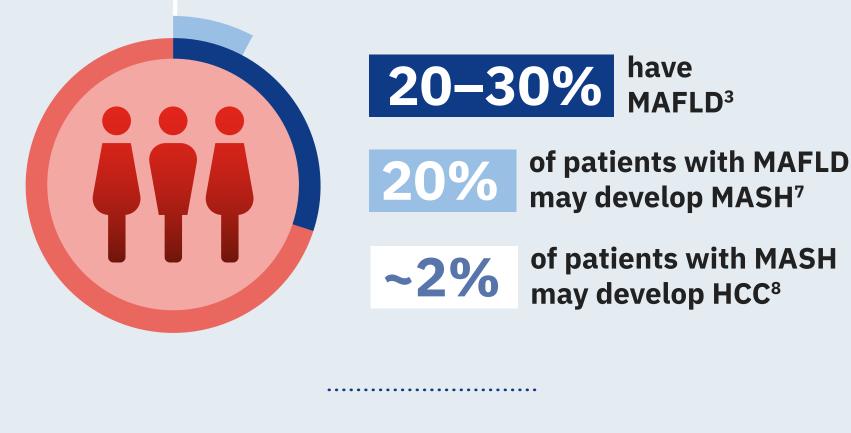
and/or<sup>5</sup>

Hepatic inflammatory cytokines may circulate systemically and promote keratinocyte hyperproliferation<sup>5</sup>



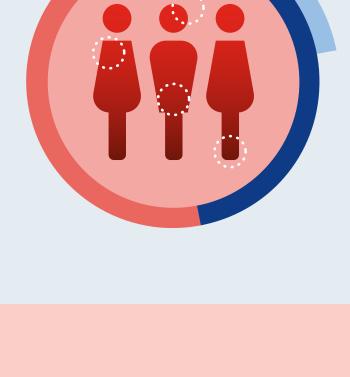
Patients with PsO have a higher risk of MAFLD compared with non-PsO controls6: OR 1.67 (95% CI 1.03-2.70), p = .04

**General Population** 



### $(N=103)^9$ had **MAFLD**

In a Population of Patients with PsO or PsA



had MASH

of patients with MAFLD

# AAD/NPF guideline but dermatologists should be aware that<sup>5</sup>

There is an increased prevalence

Hepatic disease is a comorbid condition

without specific recommendations in the







early identification allows for management and monitoring



Explore the other infographics in the Comorbidities in Psoriasis series

- <sup>a</sup>Systemic therapies included methotrexate, cyclosporine, oral retinoids, TNF inhibitors, and IL-12/IL-23 inhibitors<sup>10</sup>. AAD=American Academy of Dermatology; CI=Confidence Interval; HCC=Hepatocellular Carcinoma; IL=Interleukin;
- MAFLD=Metabolic Dysfunction-associated Fatty Liver Disease; MASH=Metabolic Dysfunction-associated Steatohepatitis; NPF=National Psoriasis Foundation; OR=Odds Ratio; PsA=Psoriatic Arthritis; TNF=Tumor Necrosis Factor.
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- 7. Fiore M, et al. *Biomed Res Int.* 2018;3140983. 8. Motta BM, et al. *Cancers (Basel).* 2023;15(22):5458. 9. Roberts KK, et al. Aliment Pharmacol Ther. 2015;41(3):293-300. 10. Ogdie A, et al. J Invest Dermatol. 2018;138(4):760-767.

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