



# Adverse Reactions Associated with Biologics for Moderate-to-Severe Plaque Psoriasis

COMMON ADVERSE REACTIONS	SERIOUS ADVERSE REACTIONS
<b>TNF INHIBITORS</b> ▶ Adalimumab (Humira, AbbVie) ▶ Etanercept (Enbrel, Amgen) ▶ Golimumab (Simponi, Janssen) ▶ Infliximab (Remicade, Janssen)	
▶ <b>INJECTION SITE REACTIONS</b> Erythema and/or itching, hemorrhage, pain, swelling	▶ <b>SERIOUS INFECTIONS</b> Reactivation of tuberculosis, new onset tuberculosis, pneumonia, septic arthritis, invasive fungal infections
▶ <b>INFECTIONS</b> Viral, bacterial, fungal infections	▶ <b>MUSCULOSKELETAL</b> Severe myalgia, arthralgia, swollen joints, immobility
▶ <b>RESPIRATORY</b> Upper respiratory infection, sinusitis, flu syndrome	▶ <b>MALIGNANCIES</b> Lymphomas, leukemia, other malignancies, melanoma, non-melanoma skin cancer
▶ <b>GASTROINTESTINAL</b> Nausea, abdominal pain, diarrhea, urinary tract infection	▶ <b>CENTRAL NERVOUS SYSTEM DEMYELINATING DISEASE</b> Multiple sclerosis, optic neuritis, peripheral demyelinating disease, Guillain-Barré syndrome.
▶ <b>RASH</b>	▶ <b>WORSENING OR NEW ONSET CONGESTIVE HEART FAILURE</b>
▶ <b>HEADACHE</b>	▶ <b>HYPERSENSITIVITY REACTIONS</b>
▶ <b>DIZZINESS</b>	▶ <b>HEPATITIS B VIRUS REACTIVATION</b>
▶ <b>FATIGUE</b>	▶ <b>ALLERGIC REACTIONS</b>
▶ <b>HYPERTENSION</b>	▶ <b>HEMATOLOGIC SYSTEM, CYTOPENIA, THROMBOCYTOPENIA, LEUKOPENIA</b>
▶ <b>FEVER</b>	▶ <b>AUTOIMMUNITY</b> Lupus-like syndrome
▶ <b>BODY PAIN</b>	▶ <b>SEVERE HEPATIC REACTIONS INCLUDING ACUTE LIVER FAILURE</b>
▶ <b>NASOPHARYNGITIS</b>	▶ <b>WORSENING OR NEW ONSET CONGESTIVE HEART FAILURE</b>
<b>IL-12/23</b> ▶ Ustekinumab (Stelara, Janssen)	
▶ <b>NASOPHARYNGITIS</b>	▶ <b>MALIGNANCIES</b>
▶ <b>UPPER RESPIRATORY TRACT INFECTION</b>	▶ <b>INFECTIONS</b> Nontuberculous, environmental mycobacteria, salmonella (non-typhi strains)
▶ <b>HEADACHE</b>	▶ <b>NEUROLOGICAL REVERSIBLE POSTERIOR LEUKOENCEPHALOPATHY SYNDROME</b>
▶ <b>FATIGUE</b>	
▶ <b>DIARRHEA</b>	
▶ <b>BACK PAIN</b>	
▶ <b>PRURITUS</b>	
<b>IL-17</b> ▶ Brodalumab (Siliq, Valeant) ▶ Ixekizumab (Taltz, Lilly) ▶ Secukinumab (Cosentyx, Novartis)	
▶ <b>INJECTION SITE REACTIONS</b>	▶ <b>SERIOUS INFECTIONS</b> Tuberculosis
▶ <b>UPPER RESPIRATORY TRACT INFECTIONS</b> Nasopharyngitis, rhinitis, oral herpes, pharyngitis	▶ <b>MUSCULOSKELETAL AND CONNECTIVE TISSUE DISORDERS</b>
▶ <b>NAUSEA</b>	▶ <b>HYPERSENSITIVITY</b> Serious allergic reaction
▶ <b>TINEA INFECTIONS</b>	▶ <b>INFLAMMATORY BOWEL DISEASE</b> Crohn's disease, ulcerative colitis (including exacerbations)
▶ <b>DIARRHEA</b>	▶ <b>MALIGNANCIES</b>
▶ <b>URTICARIA</b>	▶ <b>CARDIOVASCULAR EVENT</b>
▶ <b>RHINORRHEA</b>	▶ <b>PROCEDURAL COMPLICATIONS</b>
<b>PHOSPHODIESTERASE 4 (PDE4) INHIBITOR</b> ▶ apremilast (Otezla, Celgene)	
▶ <b>GASTROINTESTINAL:</b> Diarrhea, nausea, upper abdominal pain	▶ <b>DEPRESSION</b> (2%)
▶ <b>INFECTION:</b> Upper respiratory tract infection, common cold	▶ <b>NAUSEA</b>
▶ <b>RESPIRATORY:</b> Cough	▶ <b>VOMITING</b>
▶ <b>HEADACHE</b>	▶ <b>DIARRHEA</b>
▶ <b>DEPRESSION</b>	▶ <b>HEADACHE</b>
▶ <b>WEIGHT INCREASE</b>	▶ <b>RASH</b>