

## Fatty Acid Profiles and Topical Benefits

Fatty Acid	Type	Skin Benefits	Hair Benefits	Examples in Plant Oils/Butters
<b>Lauric Acid (C12:0)</b>	Saturated	Antimicrobial, cleansing	Reduces dandruff, conditions scalp	Coconut oil, Babassu oil
<b>Myristic Acid (C14:0)</b>	Saturated	Emollient, conditioning	Improves hair slip, adds shine	Coconut oil, Palm kernel oil
<b>Palmitic Acid (C16:0)</b>	Saturated	Occlusive, softening	Protects from breakage	Cocoa butter, Palm Kernel oil, Shea butter
<b>Stearic Acid (C18:0)</b>	Saturated	Skin barrier support, thickener	Strengthens hair shaft	Cocoa butter, Mango butter
<b>Oleic Acid (C18:1)</b>	MUFA	Deep hydration, anti-inflammatory	Adds softness, manages frizz	Olive oil, Avocado oil, Marula oil, Sesame oil, Sunflower oil, Safflower oil
<b>Palmitoleic Acid (C16:1)</b>	MUFA	Promotes healing, anti-aging	Protects scalp health	Macadamia oil, Sea buckthorn oil
<b>Linoleic Acid (C18:2)</b>	PUFA	Restores barrier, reduces acne	Light, non-greasy conditioning	Rosehip seed oil, Sunflower oil, Grapeseed oil, Safflower oil
<b>Alpha-Linolenic Acid (ALA, C18:3)</b>	PUFA	Anti-inflammatory, soothes irritation	Improves scalp comfort	Flaxseed oil, Rosehip seed oil, Chia seed oil
<b>Gamma-Linolenic Acid (GLA, C18:3)</b>	PUFA	Reduces redness, boosts elasticity	Helps with scalp eczema	Evening primrose oil, Borage oil, Black current oil
<b>Arachidic Acid (C20:0)</b>	Saturated	Rich emollient, protective	Coats hair shaft	Peanut oil, Cupuaçu butter
<b>Behenic Acid (C22:0)</b>	Saturated	Velvet feel, barrier support	Improves combability	Moringa oil, Pequi oil
<b>Eicosapentaenoic Acid (EPA)</b>	PUFA	Anti-inflammatory, antioxidant	Reduces scalp inflammation	Found in algae oils

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## Fatty Acids in Common Plant Butters and Oils

<b>Oil/Butter</b>	<b>Main Fatty Acids</b>
Cocoa Butter	Stearic, Palmitic, Oleic
Cupuaçu Butter	Stearic, Oleic, Arachidic
Illipe Butter	Stearic, Oleic, Palmitic
Kokum Butter	Stearic, Oleic
Mango Butter	Stearic, Oleic
Murumuru Butter	Lauric, Myristic, Oleic
Sal Butter	Stearic, Oleic, Palmitic
Shea Butter	Oleic, Stearic
Almond Oil	Oleic, Linoleic, Palmitic
Avocado Oil	Oleic, Palmitic, Linoleic, Palmitoleic
Apricot Oil	Oleic, Linoleic, Palmitic
Babassu Oil	Lauric, Myristic, Oleic
Castor Oil	Ricinoleic, Oleic, Linoleic
Coconut Oil	Lauric, Myristic, Palmitic
Evening Primrose Oil	Linoleic, GLA, Oleic
Flaxseed Oil	Alpha-Linolenic, Oleic, Linoleic
Grapeseed Oil	Linoleic, Oleic, Palmitic
Marula Oil	Oleic, Palmitic, Linoleic, Stearic
Moringa Oil	Oleic, Behenic, Palmitic, Stearic
Olive Oil	Oleic, Palmitic, Linoleic
Rice Bran Oil	Oleic, Linoleic, Palmitic
Rosehip Seed Oil	Linoleic, Alpha-Linolenic, Oleic
Safflower Oil	Linoleic, Oleic, Palmitic
Sea Buckthorn Berry Oil	Palmitoleic, Palmitic, Linoleic, Oleic
Sea Buckthorn Seed Oil	Linoleic, Alpha-Linoleic, Palmitic, Palmitoleic,
Sesame Oil	Oleic, Linoleic, Palmitic
Sunflower Oil	Linoleic, Oleic, Palmitic

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## Best Fatty Acids for Skin and Hair (Topical Use)

### For Skin

- **Dry skin:** Oleic Acid, Stearic Acid, Palmitic Acid
- **Oily/acne-prone skin:** Linoleic Acid, Alpha-Linolenic Acid
- **Sensitive skin:** GLA, Palmitoleic Acid

### For Hair

- **Dry/damaged hair:** Oleic Acid, Stearic Acid, Behenic Acid
- **Fine hair:** Linoleic Acid, Palmitoleic Acid
- **Scalp health:** Lauric Acid, GLA, Alpha-Linolenic Acid

### Key Notes

- **Lauric & Myristic** → Light, fast-absorbing, antimicrobial (Murumuru butter, coconut oil).
- **Stearic & Palmitic** → Rich, protective, occlusive (Cocoa, Illipe, Shea, Sal butter).
- **Oleic** → Deeply moisturizing, helps with softness (Almond, Marula, Sesame, Sunflower, Safflower oil).
- **Linoleic & Alpha-Linolenic** → Barrier-repairing, soothing, lightweight (Rosehip, Safflower oil).
- **Palmitoleic** → Skin-regenerative, anti-aging (Sea Buckthorn oil).
- **Ricinoleic** → Highly conditioning, humectant-like (Castor oil).